

EXHIBIT 7

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UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

IN RE GLOBAL BROKERAGE, INC.)
F/K/A FXCM INC.) MASTER FILE NO.
SECURITIES LITIGATION) 1:17-CV-00916-RA

THIS DOCUMENT RELATES TO:
ALL ACTIONS.

VIDEOTAPED DEPOSITION OF ADAM WERNER, PH.D.
FRIDAY, FEBRUARY 28, 2020

REPORTED BY: REAGAN EVANS, RPR, RMR, CRR, CCRR,
CLR, CRC, CA CSR NO. 8176

1 VIDEOTAPED DEPOSITION OF ADAM WERNER, PH.D., TAKEN
2 ON BEHALF OF THE DEFENDANTS AT 9:39 A.M., FRIDAY,
3 FEBRUARY 28, 2020, AT 633 WEST FIFTH STREET,
4 SUITE 1600, LOS ANGELES, CALIFORNIA, BEFORE REAGAN
5 EVANS, CA CSR NO. 8176, RPR, RMR, CRR, CCRR, CLR,
6 CRC.

7
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FXCM, INC.:

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23 ALSO PRESENT:

24 ALEXANDER AGANIN, PH.D., CORNERSTONE RESEARCH

25 JULIO LUEVANO, JR., VIDEOGRAPHER

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NO.	PAGE	DESCRIPTION
EXHIBIT 1	7	MEMORANDUM OF LAW IN SUPPORT OF MOTION FOR CLASS CERTIFICATION AND APPOINTMENT OF CLASS REPRESENTATIVES AND CLASS COUNSEL
EXHIBIT 2	10	OPENING REPORT ON MARKET EFFICIENCY BY DR. ADAM WERNER, PH.D., DATED JANUARY 6, 2020
EXHIBIT 3	11	NOTICE OF ERRATA
EXHIBIT 4	14	CORRECTED OPENING REPORT ON MARKET EFFICIENCY BY DR. ADAM WERNER, PH.D., DATED JANUARY 10, 2020, 214 PAGES
EXHIBIT 5	17	CONSOLIDATED SECURITIES CLASS ACTION COMPLAINT, FILED 6-19-2017
EXHIBIT 6	19	SECOND AMENDED CONSOLIDATED SECURITIES CLASS ACTION COMPLAINT FILED IN THIS MATTER ON APRIL 6, 2018
EXHIBIT 7	20	OPINION & ORDER - CLASS ACTION

1 LOS ANGELES, CALIFORNIA

2 FRIDAY, FEBRUARY 28, 2020; 9:39 A.M.

3

4 THE VIDEOGRAPHER: Good morning. We are on
5 the record. The time is 9:39 a.m.

6 Today's date is February 28th, 2020.

7 My name is Julio Luevano, Jr. I am the
8 notary video technician with Veritext Legal
9 Solutions, located in Los Angeles, California.

10 We are recording these proceedings at
11 633 West Fifth Street, Los Angeles, California.

12 This is Media 1 for the video deposition of
13 Dr. Adam Werner, M.D., in the action entitled,
14 "Global Brokerage, Inc., F/K/A FXCM, Inc.,
15 Securities Litigation."

16 This deposition is being taken on behalf of
17 Defendants.

18 The case number is 1:17-cv-00916-RA.

19 Now, may I please have an introduction for
20 the record, beginning with counsel.

21 MR. ISAJIW: Yeah.

22 Peter Isajiw with King & Spalding, counsel
23 for Defendant Global Brokerage, formerly known as
24 FXCM.

25 MS. ENNIS: Evan Ennis also with

1 King & Spalding, counsel for Defendants.

2 DR. ALEXANDER AGANIN: Alexander Aganin,
3 Cornerstone Research.

4 MR. HAKLAY: Gonen Haklay from the Rosen
5 Law Firm on behalf of the witness.

6 MR. BAKER: Josh Baker, the Rosen Law Firm
7 on behalf of the witness.

8 THE VIDEOGRAPHER: Thank you.

9 Ms. Reporter, please swear in the witness.

10

11 ADAM WERNER, PH.D.,
12 having been first duly sworn by the reporter, was
13 examined and testified as follows:

14

15 THE WITNESS: I do.

16

17 EXAMINATION

18 BY MR. ISAJIW:

19 Q Hi, Dr. Werner. We met off the record
20 briefly.

21 But, for the record, I'm Peter Isajiw
22 representing the defendants in this case. And I
23 wanted to thank you for taking the time to come out
24 here today and talk to us.

25 Just real quick, you were introduced as an

1 M.D. earlier on. I wanted to correct that. It's a
2 Ph.D.; correct?

3 A Correct.

4 Q Good.

5 A That was a first, by the way. I said
6 "Thank you."

7 Q Just making sure that we're clear.

8 I assume you have been deposed several
9 times before, and you're familiar with the process;
10 is that correct?

11 A Yes.

12 Q Okay.

13 So if at any point you don't understand a
14 question that I'm asking, please let me know. And
15 before we begin, I'm not going to go through all of
16 the normal, kind of, witness instructions because
17 I'm pretty sure you're familiar with them, but is
18 there anything that's preventing you from testifying
19 truthfully and fully today?

20 A No.

21 Q Okay. Great.

22 You're aware that the plaintiffs in this
23 case have sought class certification; is that right?

24 A I believe that is correct.

25 Q Okay.

1 And you were asked to provide an expert
2 opinion in support of their motion for class
3 certification; is that right?

4 A I believe so.

5 Q Okay.

6 MR. ISAJIW: I'm just going to introduce a
7 couple of exhibits here just for housekeeping
8 purposes.

9 The first one is a Memorandum of Law in
10 Support of Class Certification and Appointment of
11 Class Representatives that counsel filed by the
12 plaintiffs in this case.

13 THE REPORTER: Is that Exhibit 1?

14 MR. ISAJIW: That's Exhibit 1.

15 (Whereupon Werner Exhibit 1 was
16 marked for identification by the
17 Court Reporter.)

18 BY MR. ISAJIW:

19 Q Have you seen that Memorandum of Law
20 before?

21 A As I sit here, I don't recall.

22 If you give me my report, I'm pretty sure I
23 didn't rely on this, but I'm more than happy to
24 refresh my memory by looking at the report and
25 seeing somehow if I looked at this at some point.

1 Q Sure.

2 We'll get to your report pretty quickly
3 actually, but just sitting here today right now, do
4 you remember ever seeing that document before?

5 A Again, I'm happy to refresh my memory by
6 seeing if it's something I saw before. I guess --
7 so I don't know, as I sit here today.

8 Q Okay.

9 Can you turn to page 1 of that document.

10 And in the Preliminaries, under the title
11 "Preliminary Statement," there is a block quote.
12 And this block quote represents the class the
13 plaintiffs are asking to certify, which is (as read
14 and/or reflected):

15 All persons and/or entities
16 that purchased or otherwise
17 acquired publicly traded Global
18 Brokerage, Inc., formerly known as
19 FXCM Securities, including FXCM 2.5
20 percent Convertible Senior Notes
21 due 2018, and Class A common stock,
22 during the period March 15, 2012
23 through February 6, 2017, both
24 dates inclusive.

25 Do you see that?

1 A I do.

2 Q Is that your understanding of the class
3 that your testimony and expert report is intended to
4 assist in certification?

5 A Again, I'm happy to look at my report to
6 refresh my memory. So without -- just looking at
7 this and reading this, I would like to look at my
8 report to know whether or not I cite that.

9 Q Sitting here right now, does that sound at
10 all familiar to you?

11 A I have no reason to disagree with it, as I
12 sit here.

13 Q Okay.

14 But you don't specifically recall it being
15 part of the class that your report is supporting?

16 A Again, I'm happy to look at my report to
17 refresh my memory.

18 As I sit here today, it sounds reasonable,
19 but it's not something I remember. I'm sure --
20 again -- well, let's go with a different document.

21 How about the complaint?

22 Q Yeah, we'll get to that.

23 I'm just asking you right now, sitting here
24 today, and we'll introduce you to the report in a
25 second, and we'll probably talk about your report

1 for most of today.

2 But so today, you don't have a general
3 recollection of that being the class?

4 A It seems familiar, but I would like to
5 refresh my memory to give you a complete answer.

6 Q Sure.

7 MR. ISAJIW: This will be Exhibit 2.

8 (Whereupon Werner Exhibit 2 was
9 marked for identification by the
10 Court Reporter.)

11 BY MR. ISAJIW:

12 Q So what you have been handed as Exhibit 2
13 is a document called the "Opening Report on Market
14 Efficiency" by Dr. Adam Werner, dated January 6,
15 2020.

16 That is the original report you filed in
17 this matter.

18 Do you recognize that document?

19 A When you say "original report," do you mean
20 the report with the corrections or the report
21 without the corrections?

22 Q I'm talking about the first one.

23 A So that's the report without the
24 corrections?

25 Q That's correct.

1 A Yes, I believe I've seen this before.

2 Q Does flipping through this document refresh
3 your recollection on the class?

4 A Yes.

5 Q Okay.

6 So is -- going back to the original
7 question on the class certification motion, the
8 definition of class is consistent; is that correct?

9 A That -- I believe that is correct.

10 Q You can put that to the side.

11 I'm going to put in front of you what we're
12 marking as Exhibit 3.

13 (Whereupon Werner Exhibit 3 was
14 marked for identification by the
15 Court Reporter.)

16 BY MR. ISAJIW:

17 Q And this is a Notice of Errata that
18 indicates that (as read and/or reflected):

19 On January 6th, 2020,
20 Plaintiffs inadvertently filed a
21 version of the "Opening Report on
22 Market Efficiency" by Dr. Adam
23 Werner that contained
24 non-substantive errors.
25 And it replaces a corrected copy.

1 Do you recognize that document?

2 A I don't think I've seen this letter before,
3 but, otherwise, yes.

4 Q Okay.

5 And so this document has your original
6 report and your corrected report; correct?

7 A Oh, does it? I don't --

8 Q I'm sorry. I'm sorry.

9 It has the corrected report and a redline
10 showing the changes from your original report.

11 A Okay.

12 Q So you recognize that document as both your
13 corrected report and a redline indicating the
14 changes to your prior report?

15 A Well, I haven't seen the redlines. Can you
16 point me to a particular page?

17 Q Generally speaking, what is your
18 recollection of what you needed to correct in the
19 second report?

20 A I believe there was some statistics that
21 were slightly off.

22 Q Okay.

23 Anything else?

24 A Not that I recall, but, again, if you --
25 I'm happy to go through all of this, if you would

1 like me to fully refresh my memory.

2 Q I'll get there.

3 I'm just asking what you remember first.

4 A Okay.

5 Q So you had to correct some statistics.

6 Do you remember what the issue was with
7 those statistics?

8 A I believe they were miscalculated.

9 Q And who recognized the miscalculation?

10 A I believe I did.

11 Q Okay.

12 And what was the context for you to realize
13 that there were miscalculations?

14 A I had noticed that between drafts the
15 numbers had changed.

16 Q Okay.

17 After you submitted the first report, so
18 you were just reviewing the report?

19 A I -- correct.

20 Q Okay.

21 So we have taken the corrected report,
22 which is an exhibit there, and just bound it so it's
23 easier to deal with today.

24 So I'm going to hand you this as Exhibit 4
25 so that when we flip through, it will just be easier

1 to navigate.

2 (Whereupon Werner Exhibit 4 was
3 marked for identification by the
4 Court Reporter.)

5 THE WITNESS: Do you think you will return
6 to Exhibit 3?

7 BY MR. ISAJIW:

8 Q I don't think so. We may, though.

9 A I'm just going to place it up there. It's
10 not like I'm going to --

11 Q We're just using Exhibit 4 to make it
12 easier so that you don't have to deal with that pile
13 of paper.

14 A Thank you.

15 Q So that is your corrected report. Like I
16 said, we just bound it for ease of navigating.

17 Did you write that report?

18 A I wrote the report and was assisted by
19 people at Crowninshield in writing this report.
20 They helped me draft the report. But I approved
21 everything that is in this report.

22 Q Okay.

23 Anyone other than Crowninshield help you
24 draft the report?

25 A I'm trying to remember. There may be

1 someone who is named Narinder Walia, who I'm not
2 sure what his relationship with Crowninshield is.

3 Q Can you spell that?

4 A Sure. It's "W" as in Werner; "A" as in
5 Adam; "L" as in Larry; "I" as in imbécil; "A" as in
6 Adam.

7 Q Okay.

8 A Do you want his first name?

9 Q Sure.

10 A Sure. So it's Narinder. "N" as in Nancy;
11 "A" as in Adam; "R" as in Robert; "I" as in -- we'll
12 deal with something else -- interesting; "N" as in
13 Nancy; "D" as in David; "E" as in eventually; "R" as
14 in Robert.

15 Q Okay.

16 And you believe that Mr. Walia -- is it
17 Mr. or Mrs.?

18 A Mr.

19 Q You think Mr. Walia works for
20 Crowninshield?

21 A I don't know what his relationship with
22 Crowninshield is.

23 Q Okay.

24 A Sorry.

25 Q Sure.

1 A If anything, he's a 1099 employee.

2 Q Okay.

3 A So, yeah, he's not -- I don't think he --
4 he does not receive a W-2 from Crowninshield.

5 Q So aside from those people, anybody else
6 you can think of who assisted you with the report?

7 A No.

8 Q Okay.

9 Have you done any more work on this matter
10 since filing that corrected report?

11 A No.

12 Q When were you retained?

13 A I don't recall.

14 So what are we in? We're in -- it's not --

15 Q Approximately?

16 A I probably was contacted in October or
17 November. That's speculative -- speculating on my
18 part. I don't have the exact date.

19 Q Okay.

20 Do you know what year you were retained?

21 A Last -- oh -- so when you say "retained,"
22 you mean signed a retention agreement?

23 Q Let's start with that.

24 A I don't know.

25 Q Okay.

1 Let's start with just contacted to
2 potentially work on this matter.

3 A I believe that would be 2019.

4 Q Okay.

5 Can you keep that in front of you because
6 we'll talk about it, but I want to have you take a
7 look at two more documents.

8 A Sure.

9 Can I put Exhibit 1 up here as well?

10 Q Sure.

11 Just keep Exhibit 4, your corrected report,
12 handy.

13 MR. ISAJIW: Which one is this?

14 THE REPORTER: 5.

15 (Whereupon Werner Exhibit 5 was
16 marked for identification by the
17 Court Reporter.)

18 BY MR. ISAJIW:

19 Q I'm handing you what is being marked as
20 Exhibit 5, a Consolidated Securities Class Action
21 Complaint in this matter, which was filed 6-19-2017.

22 Have you seen this document before?

23 A I have.

24 Q Okay.

25 And did you review this document in

1 connection with your work on this matter?

2 A I did.

3 Q Okay.

4 And did you review this document before you
5 started your analysis on this matter?

6 A Define "analysis."

7 Q So you were asked to render a couple of
8 opinions which you put into this report; is that
9 correct?

10 A That is correct.

11 Q Okay.

12 In the process of rendering those opinions,
13 you did some analysis in order to come up with those
14 opinions; is that correct?

15 A That is correct.

16 Q Okay.

17 Prior to beginning the analysis to support
18 your opinions, did you review this complaint?

19 A I don't know the exact timeline. My guess
20 is yes, but, again, that's a guess.

21 Q Okay.

22 I'm going to put one more document in front
23 of you. This is going to be Exhibit 6.

24 ///

25 ///

1 (Whereupon Werner Exhibit 6 was
2 marked for identification by the
3 Court Reporter.)

4 BY MR. ISAJIW:

5 Q And Exhibit 6 is the Second Amended
6 Consolidated Securities Class Action Complaint filed
7 in this matter on April 6, 2018.

8 Do you recognize that document?

9 A I do.

10 Q Okay.

11 And have you reviewed this document before?

12 A I have.

13 Q Okay.

14 A Let me correct my previous testimony now.

15 I'm not sure that I've reviewed the first
16 complaint.

17 Q Okay.

18 A I may have just reviewed the second amended
19 complaint.

20 Q Okay.

21 So did you review the second amended
22 complaint before beginning your analysis in this
23 matter?

24 A I don't recall.

25 Q Okay.

1 So when we were talking about the first
2 amended complaint, you said you may have reviewed it
3 before the amended -- before the analysis.

4 And so does that answer change with the
5 second amended or --

6 A No.

7 Q Okay.

8 So you just don't remember if you reviewed
9 it before or after?

10 A Right.

11 As I -- that's what I stated with regards
12 to this first complaint. It's the same answer.

13 Q Okay.

14 But you certainly reviewed it during your
15 analysis?

16 A Yes.

17 Q And you reviewed it before you finalized
18 your report?

19 A Yes.

20 (Whereupon Werner Exhibit 7 was
21 marked for identification by the
22 Court Reporter.)

23 BY MR. ISAJIW:

24 Q And what I've just handed you as Exhibit 7
25 is the Opinion & Order on the motion to dismiss in

1 the class action in this case, which was decided
2 March 28th, 2019.

3 Have you seen this document before?

4 If you don't mind, I'm just wondering,
5 looking at that document, do you recognize it?

6 A I mean, it looks like any other legal
7 filing I've seen.

8 Q Okay.

9 A So I would like to refresh my memory by
10 seeing if it's something I have seen before.

11 Q So just to be clear, you're saying that you
12 can't remember if you've ever seen that document
13 before, just sitting here today?

14 A I believe that is accurate.

15 Q Okay.

16 A I don't believe I've seen it before.

17 Q Okay.

18 Has anyone ever summarized it for you?

19 A No.

20 Q Are you aware that there was an order on
21 the motion to dismiss in this matter?

22 A I believe I was aware.

23 Q How did you become aware?

24 A I think I was told by Counsel.

25 Q Okay.

1 When did you become aware?

2 A I don't know.

3 Q Did you become aware before you finished
4 your report?

5 A I don't recall.

6 Q Were you aware of the result of the order?

7 A Can you repeat the question, please.

8 (The record was read back as
9 follows:

10 "Question: Were you aware of
11 the result of the order?")

12 THE WITNESS: And so when you mean the
13 "result," you mean the conclusions on page 38 and
14 39?

15 BY MR. ISAJIW:

16 Q I'm just trying to understand your
17 understanding of the results.

18 A Right.

19 And I'm just trying to understand your
20 definition of results.

21 Q Using your best definition of the word
22 "results," are you aware of the results of the
23 motion to dismiss?

24 MR. HAKLAY: Objection. He stated that he
25 doesn't know what you mean by it. He doesn't want

1 to give an answer where somebody might one day say,
2 here's what results mean.

3 So define what you mean by "results" and
4 he'll answer it.

5 MR. ISAJIW: Okay.

6 We can limit the speaking -- just objection
7 to form --

8 MR. HAKLAY: I'll limit it to whatever is
9 necessary.

10 MR. ISAJIW: -- is the appropriate way to
11 go.

12 MR. HAKLAY: That's fine.

13 Don't answer it until he does.

14 MR. ISAJIW: You're instructing him not to
15 answer the question?

16 MR. HAKLAY: If you don't understand it.

17 BY MR. ISAJIW:

18 Q So you told me earlier, and correct me if I
19 am wrong, that you were aware that there was a
20 decision on the motion to dismiss.

21 A Correct.

22 Q Okay.

23 And you don't remember exactly when you
24 became aware that there was a decision on the motion
25 to dismiss?

1 A That is correct.

2 Q Whenever you became aware of the decision
3 on the motion to dismiss, what did you understand
4 the decision to be?

5 A I'm not sure I even thought about it.

6 Q So in what context did you become aware of
7 it?

8 A Someone told me they survived a motion to
9 dismiss.

10 Q Did someone tell you anything else, other
11 than they survived the motion to dismiss?

12 A I don't believe so.

13 Q Okay. Sitting here today, you have no
14 additional context whatsoever for "what survived the
15 motion to dismiss" means?

16 A In general, or in this matter?

17 Q Let's start in general.

18 A Could you repeat the question, please.

19 (The record was read back as
20 follows:

21 "Question: Sitting here
22 today, you have no additional
23 context whatsoever for "what
24 survived the motion to dismiss"
25 means?")

1 THE WITNESS: I don't understand the
2 question.

3 BY MR. ISAJIW:

4 Q In your view, what does "surviving a motion
5 to dismiss" mean?

6 A In practical terms, in general, it means
7 that the judge has allowed the case to go forward.

8 Q Okay.

9 In context of this case, specifically, what
10 do you understand surviving the motion to dismiss to
11 mean?

12 A It wouldn't be any different than my
13 general understanding of what it means to survive a
14 motion to dismiss.

15 Q Do you have any understanding if any claims
16 or allegations were removed from the case in
17 connection with the decision on the motion to
18 dismiss?

19 A I do not.

20 Q Okay.

21 So the motion to dismiss came out in March
22 of 2019?

23 MR. HAKLAY: You mean the opinion?

24 MR. ISAJIW: I'm sorry. The order.

25 THE WITNESS: March of 2019, correct.

1 That's what it says anyway. Excuse me.

2 BY MR. ISAJIW:

3 Q And your first report came out in January
4 of 2020; is that correct?

5 A Yes.

6 Q Okay.

7 So to the extent you were notified of the
8 decision on the motion to dismiss, do you believe it
9 would have been before or after you started your
10 work on the report?

11 A Well, I'm just -- and just based on logic,
12 I don't think -- if they hadn't survived the motion
13 to dismiss, my guess is they wouldn't have asked me
14 to submit a report in this matter.

15 So I guess I was probably aware of it
16 before I started working on my report.

17 Q Okay.

18 A But that's just based on logic. I don't
19 recall any specific date.

20 Q Okay.

21 So the -- you're employed by The Rosen Law
22 Firm here; is that correct?

23 I'm sorry. Retained by The Rosen Law Firm?

24 A I believe that's correct.

25 Q Okay.

1 A But I think formally, Crown- -- I'm not
2 sure how the exact relationship works because they
3 sign the engagement letter with Crowninshield.

4 Q Okay.

5 A So I don't know if that means that
6 technically Crowninshield is retained by The Rosen
7 Law Firm.

8 Q Okay.

9 Are you aware if Rosen -- The Rosen Law
10 Firm is paying Crowninshield for your efforts in
11 this case?

12 A I believe so.

13 Q And do you know how much they are paying
14 Crowninshield for your efforts in this case?

15 A You mean for my work?

16 Q Yes.

17 A And I'm referring now to paragraph 7 of my
18 report.

19 Q Uh-huh.

20 A \$675 per hour.

21 Q And you mentioned earlier that some
22 additional Crowninshield consultants have assisted.

23 Are you aware of what their rate is?

24 A Again, referring to paragraph 7, it's
25 between 250 to \$500 per hour.

1 Q And do you know how much Crowninshield has
2 billed for this matter so far?

3 A I do not.

4 Q Approximately, how many hours have you
5 spent in connection with this matter so far?

6 A Somewhere between 20 and 30 hours.

7 Q Do you know if Crowninshield has submitted
8 invoices to The Rosen Firm for your work in this
9 matter?

10 A I believe they have.

11 Q Do you know if they've been paid?

12 A I -- well, I believe so.

13 Q Okay.

14 A If I could just add. The Rosen Law Firm is
15 very timely in their payment of bills. So that's
16 why -- I don't know if we've submitted a bill for
17 January. I know they've paid their bill through
18 December -- sorry -- on my work through December.

19 Q Okay.

20 And so going back to your report, you were
21 asked by The Rosen Law Firm to provide an expert
22 opinion on market efficiency as to the FXCM common
23 stock; is that correct?

24 A Well, again, let's just turn to my report.
25 I was retained (as read and/or reflected:)

1 To provide an opinion that
2 will assist the court in
3 determining whether the common
4 stock of -- and this is paragraph 1
5 in my report -- Global Brokerage,
6 Inc., formerly known as, and that's
7 F/K/A/ -- oh, no slash after the
8 "A," sorry, FXCM Inc., and that's
9 the abbreviation for incorporated,
10 ("FXCM" or the "Company") and the
11 FXCM 2.25 percent Convertible
12 Senior Notes due 2018 traded in
13 efficient markets during the
14 periods for March 15, 2012, through
15 February 6, 2017 (the "Class
16 Period"), and June 24, 2014,
17 through February 6, 2017 (the
18 "Notes Period"), respectively.
19 Oh, sorry (as read and/or reflected:)

20 In addition -- and this is
21 paragraph 2 -- The Rosen Firm asked
22 me to provide an opinion that will
23 assist the court in understanding
24 and determining whether the trier
25 of fact will be able to measure

1 damages in this matter by means of
2 a common methodology and calculate
3 them on a class-wide basis for all
4 Class members in connection with
5 their claims under Section 10(b) of
6 the Exchange Act of 1934 (the
7 "Exchange Act") and the U.S.
8 Securities & Exchange Commission
9 ("SEC") Rule 10b-5 adopted
10 thereunder.

11 And we'll just leave it at that.

12 Q Thank you for that.

13 So my question was: You were asked to
14 provide an expert opinion on market efficiency
15 concerning the FXCM common stock; is that correct?

16 A That was your question, correct.

17 Q Yeah.

18 Did you need to refer to your report to
19 answer that question?

20 A Well, in any deposition, I try to be as
21 accurate as possible.

22 And so to the extent that this reflects my
23 opinion and full understanding of what I have been
24 asked to do, as well as my opinions on this matter,
25 I would like to refer to my report. It's just

1 generally what I like to do.

2 Q Okay.

3 A So that is my full understanding of what I
4 was retained.

5 So I guess your question -- the answer to
6 your question is yes, but then I was also hired to
7 determine or opine upon market efficiency for the
8 notes, which was not part of your question.

9 Q It was going to be my next question.

10 A Well --

11 Q But my current question is: Could you have
12 answered that without reference to your report?

13 A Is it possible? It is possible for me to
14 do so. But, again, in any deposition, I try to be
15 as accurate as possible.

16 And so this fully reflects what I was hired
17 to do in this matter.

18 Q Okay.

19 Does this corrected report in front of you
20 embody the sum total of your opinions in this
21 matter?

22 A As of this date, yes.

23 Q Have there been any other opinions you have
24 been asked to provide in connection with this
25 litigation that are not in that report?

1 A Not at this time.

2 Q Are you offering any opinion as to whether
3 the defendants in this case made any false or
4 misleading statements?

5 A I don't believe so.

6 Q Have you done any independent review to
7 determine whether or not the statements that
8 Plaintiffs are challenging in their complaint are
9 accurate or inaccurate?

10 A What do you mean by "independent review"?

11 And I mean that because I have seen
12 documents, such as the SEC or -- they're not the
13 SEC, the order at the end of the Class Period. That
14 certainly formed my opinion.

15 But I don't -- so I don't know if that's
16 independent work or work that was done as part of
17 this report.

18 Q It informs your opinion on what?

19 A Well, so -- right.

20 So I saw, and I'm referring now to
21 Footnote 126 of my report.

22 I've seen this document from the
23 U.S. Commodities Futurist Trading Commission press
24 release.

25 I don't know if that -- if that, under your

1 definition, is considered independent research or
2 it's research that I was done -- that was done, you
3 know, in forming my opinions.

4 Q Okay.

5 The original question that I was asking is
6 whether or not you were asked to form an opinion on
7 the accuracy of the statement that the plaintiffs
8 are challenging in their complaint.

9 And I believe your answer was you were not.

10 A That is correct.

11 Q Okay.

12 When I was asking the next question of if
13 you did any independent research to confirm the
14 accuracy of the statements that Plaintiffs are
15 challenging in the complaint, you mentioned the
16 document in the footnote.

17 Is it fair to say that you have not
18 rendered any opinions as to the accuracy of the
19 statements that Plaintiffs are challenging in their
20 complaint?

21 A That is correct.

22 Q Okay.

23 Let's flip to Exhibit 1 of your report,
24 which begins on page 65. And I just want to run
25 through some of your -- it's your curriculum vitae,

1 your C.V.

2 MR. HAKLAY: Can we have an understanding
3 that when he says "my report" or you say "my
4 report," unless otherwise indicated, we're looking
5 at the -- at Exhibit 4, the correct reported, just
6 so --

7 MR. ISAJIW: That is an excellent
8 housekeeping note.

9 Q So just looking at this -- I just want to
10 run through your background.

11 You have a BA in economics from Overland
12 College; is that correct?

13 A Correct.

14 Q And a Ph.D. in finance from Northwestern?

15 A As well as a master's in finance, but I
16 don't normally list that.

17 Q Any other degrees?

18 A I don't believe so.

19 Q Any other professional certifications
20 relevant to your work here?

21 A No.

22 Q And you're currently a lecturer in finance
23 and economics at Cal Poly, San Luis Obispo; is that
24 correct?

25 A I think it would be more accurate to say

1 I'm a lecturer in economics. I can't -- I haven't
2 taught a course in finance probably in three or four
3 years.

4 Q Okay.

5 Have you lectured in economics in the last
6 three or four years?

7 A Yes.

8 Q Okay.

9 And where were those lectures?

10 I guess my question was, you were currently
11 a lecturer, and then you made a clarification. So
12 I'm trying to figure out what's the -- what's the
13 clarification.

14 A Oh, the clarification is I don't teach -- I
15 can't -- I haven't taught finance in a couple of
16 years. So it's probably more accurate to say that I
17 am a lecturer in economics at Cal Poly as opposed to
18 a lecturer in economics and finance.

19 Q I see. Okay. Thank you for that.

20 You have been a lecturer since 2014?

21 A Correct.

22 Q Okay.

23 Is that a tenured-track position?

24 A No.

25 Q And can you just briefly describe your work

1 there with Cal Poly?

2 A Yeah.

3 I teach classes almost -- now almost
4 exclusively in macroeconomics. There have been
5 discussions of teaching other courses, but --

6 Q And how many classes a year do you teach?

7 A When you say, "how many classes," do you
8 mean how many sections?

9 Q I don't know how the curriculum at Cal Poly
10 is cut up.

11 Do you teach one course a year? Two
12 courses a year?

13 A Okay.

14 So let me ask a clarifying question, right.

15 So when you say "course," all right, I
16 would consider macroeconomics a course. All right.

17 Q Okay.

18 A Now -- so if that's the definition, I
19 normally teach one course a year.

20 Now, if we're talking about the number of
21 sections I have, because I have multiple sections, I
22 probably teach between eight and nine sections a
23 year.

24 Now, I don't know if you consider each
25 section a course, as you've defined it. Or --

1 Q What is a section?

2 A It is a classroom filled with students.

3 Q Okay.

4 So for macroeconomics, a classroom filled
5 with students meets eight or nine times a year?

6 A No.

7 Q Okay.

8 A I'm not sure what the confusion is on this.
9 It's no different than any other college or
10 university.

11 I mean, you went to law school and got a
12 BA; right?

13 If you went to an economics class, would
14 you say that was a class or a course?

15 Q Let's, for the purposes of this
16 conversation, call that a course.

17 A Okay.

18 And so you take a course in economics, and
19 then you take another course in English.

20 Is that a separate course?

21 Q Yes.

22 A Okay.

23 If you had taken the same macroeconomics
24 class again for whatever reason, would that be
25 considered a different course but the same class?

1 Q Is that a common phenomenon in your
2 experience?

3 A Well, I'm -- well, unfortunately, yes.
4 Some students fail the course and then have to
5 retake it.

6 So it's more common than one would like.

7 But I'm just -- I'm really not trying to
8 make this difficult. I'm just trying to have --
9 understand the question. I don't understand why you
10 are confused about the difference between a course
11 and a class.

12 Q I don't believe that I am. I'm just trying
13 to understand how many -- how many subjects do you
14 teach a year?

15 A So now we're on subjects.

16 Q Okay.

17 Students sign up to learn from you in some
18 capacity; is that correct?

19 A I believe that's correct.

20 Q Okay.

21 When they sign up, they sign up for what?
22 A class? A course? A section? What do they sign
23 up for?

24 A I think, in layman's terms, I would call it
25 a class.

1 Q Okay.

2 In those terms, how many classes do you
3 teach?

4 A Between eight and nine.

5 Q In what subjects?

6 A Macroeconomics.

7 Q All macroeconomics?

8 A Well, I mean, macroeconomics encompasses a
9 large field, but, yes, all in macroeconomics.

10 Yeah, well, so sometimes I teach survey of
11 economics, which would include macroeconomics. I
12 have taught managerial economics and international
13 finance. And this, again, is at Cal Poly, but
14 mostly I just -- now I just teach macroeconomics.

15 Q Okay.

16 A Occasionally I will teach another course
17 or -- yes.

18 Q How many hours a week do you devote to that
19 effort, generally?

20 A So this is teaching and prep?

21 Q Yes.

22 A Somewhere between 15 and 20 hours a week.

23 Q Okay.

24 A It varies from quarter. Some quarters I
25 teach a large lecture class, and so then I have what

1 I consider two sections of my macroeconomics course.
2 But those lectures also have, like, 230 students in
3 them. So ...

4 Q Okay.

5 You also work for Crowninshield; is that
6 correct?

7 A Again, just for accuracy, when you say
8 "work," do you mean employed?

9 Q I mean render services in exchange for
10 money.

11 A I believe that's accurate.

12 Q Okay.

13 What is your position at Crowninshield?

14 A I think they refer to me as -- it's either
15 expert or associated expert.

16 Here on the card it says "expert." If you
17 want me to look at the website, I can give you the
18 exact title, but -- oh, affiliated expert. There we
19 go. I believe I -- if you look at the website, I'm
20 under the title Affiliated Expert.

21 Which is --

22 Q How long have you been an affiliated expert
23 with Crowninshield, roughly speaking?

24 A Hold on one second. I just want to make
25 sure.

1 Q I'm just looking for your best
2 understanding right now.

3 A Yes. No. No. No.

4 Q Do you not -- are you not able to answer
5 the question?

6 A No. I'm trying to refresh my memory about
7 the previous question.

8 Q Which question are you trying to answer?

9 A My title at Crowninshield.

10 Yes. I am also an affiliated expert. So
11 that is paragraph 4 of my report. So that is my
12 official title with Crowninshield.

13 Q How long -- how many years have you
14 rendered services in exchange for money with
15 Crowninshield?

16 A Since 2015.

17 Q How many hours a week, on average, do you
18 spend in connection with your services for
19 Crowninshield?

20 A On average? Maybe ten.

21 Q Okay.

22 In terms of proportion of your yearly
23 income, which is larger, the income you derive from
24 your work at Crowninshield or the income you derive
25 from your work at Cal Poly?

1 A Crowninshield. Depending on the year.

2 Q Let's look at last year.

3 A Crowninshield.

4 Q Are you employed by, or work for, in any
5 capacity any entity, other than Cal Poly or
6 Crowninshield?

7 A Okay.

8 So I work as a planning commissioner for
9 the City of Pismo Beach for which I receive I
10 believe it's \$50 per meeting. So I don't know if
11 that would be considered employment or not. I think
12 of it more as community service.

13 Q Focusing on economics.

14 A Well, part of my job on the planning
15 commission would include my understanding of
16 economics. So --

17 Q Okay.

18 Any other jobs?

19 A No.

20 Q Taking a look at page 66, starting at 65
21 going over to 66, we were talking about your Papers
22 and Publications.

23 The most recent one under Publications I
24 see is a "Law360" article from 2013 entitled, "More
25 'Dark Pools' Deepen Litigation Issues"; is that

1 correct?

2 A That's what it states. I had a "Law360"
3 article, I think, last year.

4 Q Okay.

5 That "Law360" article is not listed in this
6 list of publications; is that right?

7 A That is correct.

8 Q So your most recent one was last year?

9 A I believe so.

10 Q And what was the topic of that "Law360"
11 article?

12 A It had to do with settlements, settlement
13 statistics, looking at -- I think that fairly
14 summarizes it.

15 Q And under Presentations, I see the most
16 recent one also in September of 2013, "Cause or
17 Effect: Are Settlement Statistics Driving Down
18 Settlement?" And it's a presentation to a number of
19 law firms.

20 Do you see that?

21 A I do.

22 Q Is that your last and most recent
23 presentation?

24 A I believe that's accurate. Other than
25 presenting in a classroom environment.

1 Q How many peer-reviewed articles, broadly
2 speaking on the subject of economics, have you
3 published?

4 A Well, okay. So this -- it really depends.
5 I would not -- I mean, one might argue that the
6 Federal Reserve paper I wrote was peer reviewed.

7 And what I've seen defendant experts refer
8 to "Law360" articles as peer-reviewed articles. I
9 don't personally consider them as peer-reviewed
10 articles. So based on that definition, possibly
11 one.

12 Q Okay.

13 A I mean, based on my definition. If you
14 want me to go with the defendant expert's
15 definition, possibly three.

16 Q Okay.

17 So based on your definition, it's one. And
18 that the 1993 Federal Reserve Bank of Cleveland
19 Economic Commentary that you're talking about?

20 A Right.

21 I mean, I suppose you could consider my
22 dissertation peer reviewed, but ...

23 Q When was that?

24 A That was completed in 1999.

25 Q Okay.

1 How much of your time is dedicated to
2 research in the area of market efficiency?

3 A When you say "research," do you mean
4 academic research?

5 Q I do.

6 A I mean, to the extent that I discuss market
7 efficiency in my macroeconomics class, a small
8 portion of it.

9 Q Okay.

10 A But outside -- outside of that -- I mean, I
11 certainly read about market efficiency and -- I
12 don't know if you -- that would fall under your
13 definition.

14 Q How much time do you spend reading about
15 market efficiency?

16 A To the extent I read these reports about
17 market efficiency, I don't know. Five hours a
18 month.

19 Q Okay.

20 And in your research on market efficiency,
21 how much time would you spend researching the
22 difference in market efficiency in connection with
23 equity securities versus fixed income securities?

24 A I don't understand the question.

25 Q When you research market efficiency --

1 A Well, so -- and I'm sorry. I don't mean to
2 interrupt you. I just want to ask a clarifying
3 question so to help move this along.

4 So when you say "research," do you mean
5 reading about market efficiency? Because I'm not
6 actively, like, writing papers on market efficiency.
7 If that's what you want to consider research.

8 Q Okay.

9 Before you mentioned academic research when
10 I asked you about how much time you spend
11 researching.

12 Using that same definition of academic
13 research, how much, if any, time do you spend in
14 academic research in connection with market
15 efficiency and differences between equity securities
16 and fixed income securities?

17 A Okay.

18 So I'm excluding just reading papers. I
19 would say none.

20 Q If we turn to the expert reports and
21 testimony section of your report, starting on
22 page 67 and 68. There are a number of cases listed
23 where you've provided expert reports and testimony.

24 And I'm just wondering if you can tell me
25 whether any of these expert reports or testimony

1 were on behalf of a defendant in a federal
2 securities action.

3 A Well, so let me just go through this.

4 So I'm not sure if you would consider this
5 a securities matter.

6 This Gwyn Hartman -- I'm now looking at
7 page 69 of -- well, just go with page 69 of
8 Exhibit 4. "Gwyn Hartman Revocable Living Trust
9 versus Southern Michigan Bancorp." That was not a
10 10b-5 case, but I don't know if you would consider
11 that a securities matter.

12 Q But that was for a defendant in a
13 litigation?

14 A Correct.

15 Q Okay.

16 Is it fair to say that the majority of your
17 engagements, expert reports, and testimonies listed
18 here are for plaintiffs --

19 A So when you --

20 Q -- in securities litigations?

21 A When you say "engagements," you mean
22 engaged as an expert?

23 Q I mean, for each of the lists of expert
24 reports and testimony starting on page 67 and
25 continuing on to page 71. To the extent they are in

1 connection with federal securities cases, is it fair
2 to say that the majority are for plaintiff's side?

3 A And, again, I'm not trying to be difficult.
4 I'm just trying to define what you mean by
5 "experts."

6 So having submitted a report; right?
7 Because I've worked on hundreds of defendant cases
8 at places like Cornerstone and CRA and NERA. I
9 don't consider myself having been retained as an
10 expert in those cases.

11 Q I'm just referring to the section of your
12 CV entitled "Expert Reports and Testimony."

13 So I assume those are, based on your CV,
14 matters in which you were retained to submit an
15 expert report or testimony.

16 A Right. Which is why I asked the clarifying
17 question when you said "expert," whether you meant
18 retained as an expert to provide an opinion.

19 So as long as that's the definition --

20 Q Yeah.

21 A -- yes, your statement would be correct.

22 Q The statement that the majority is for the
23 plaintiff's side?

24 A That is correct.

25 Q Okay.

1 In any of these matters listed on pages 67
2 to 71 of your CV, and we're referring to the same
3 set of expert reports and testimony related to fixed
4 income securities as opposed to equity securities.

5 A Is there a question? Could you read
6 that -- I didn't think there was a question. I
7 think it was a statement.

8 (The record was read back as
9 follows:

10 "Question: In any of these
11 matters listed on pages 67 to 71 of
12 your CV, and we're referring to the
13 same set of expert reports and
14 testimony related to fixed income
15 securities as opposed to equity
16 securities.")

17 THE WITNESS: I think it's an incomplete
18 question. If you're asking me how many reports have
19 I rendered an opinion about efficiency in a fixed
20 income security? Is that the question?

21 BY MR. ISAJIW:

22 Q That's not the question. But let's answer
23 that question.

24 A A few.

25 Q Can you give me context for what "a few"

1 is? Is it one? Five? Ten?

2 A I don't recall. No. It would certainly be
3 less than ten.

4 Q Okay.

5 A And I would be surprised if it was five.

6 Q And in those approximately five or less
7 matters, were any of them Rule 144A bonds?

8 A I don't recall.

9 (Reporter clarification.)

10 BY MR. ISAJIW:

11 Q Have you ever issued a written opinion in
12 any case indicating that a security stock or a bond
13 did not trade in an efficient market?

14 A Well, so I'm not -- I'm not sure I've
15 actually seen anyone ever render an opinion that a
16 stock or bond has not traded in an efficient market,
17 specifically said -- stated that.

18 To the extent that I have found instances
19 where I believed that the market for these -- for a
20 stock or a bond is inefficient and I relay that to
21 my potential clients, I'm usually then not asked to
22 write a report.

23 Q Okay.

24 In those situations, what findings led you
25 to conclude that the market for the security would

1 not be efficient?

2 MR. HAKLAY: Objection. Vague.

3 THE WITNESS: I mean, again, I would look
4 at the same factors I would look at in providing my
5 opinion here.

6 So I would look at the Cammer and Krogman
7 factors.

8 BY MR. ISAJIW:

9 Q Okay.

10 In those situations where you have made a
11 decision that you cannot issue the report and,
12 therefore, you're not asked to issue the report --

13 A Well, it's not that I can't issue a report.
14 I could issue a report. Right? I mean, I could
15 issue a report with my findings. So that ...

16 Q How often have you been asked about whether
17 or not a market is efficient and you've come to the
18 conclusion that it is not?

19 A I don't recall.

20 Q Roughly speaking, how often?

21 A I have no idea.

22 Q More than five times?

23 A Maybe.

24 Q No idea whatsoever?

25 A I mean, it's less than 20.

1 Q Okay.

2 A Probably less than ten, but beyond that, I
3 would be speculating.

4 Q The very last time that this situation came
5 up, what were the reasons that led you to believe
6 that the market was not efficient?

7 A Well, again, it's not that the market was
8 inefficient.

9 It was that I could not opine that the
10 market was efficient. Those two statements are
11 different.

12 Q Okay.

13 What was the basis on which you could not
14 opine that the market was in- -- was efficient?

15 A My review of the Cammer and Krogman
16 factors.

17 Q Which Cammer and Krogman factors in
18 particular?

19 A I can't recall.

20 Q No recollection whatsoever?

21 A Not as I sit here, no.

22 Q Have you ever been disqualified by any
23 court from serving as an expert?

24 A No.

25 Q Have any of your opinions been subject to a

1 Daubert motion?

2 A Subject to a Daubert motion?

3 Q Yes.

4 A As in one was filed against me?

5 Q Correct.

6 A I believe so.

7 Q Have any of your opinions been excluded
8 pursuant to a Daubert motion?

9 A No.

10 Q Going back to the documents you considered
11 in connection with this report, were there any
12 materials that you requested as part of your
13 engagement that you did not receive?

14 A When you say "receive," you mean received
15 from either Plaintiffs' counsel or Crowninshield?

16 Q In any capacity.

17 A I don't believe so.

18 Q And did you conduct any market efficiency
19 analysis that is not reflected in your report?

20 A I don't believe so.

21 Q How much time did you spend prepping for
22 this deposition?

23 A So when you say "prepping," do you mean
24 meeting with counsel, or do you mean prepping on my
25 own, like, reviewing material?

1 Q Both.

2 A Both. Total, probably, I don't know, eight
3 hours, maybe less.

4 Q And in connection with your prep, I assume,
5 based on your answer, you did meet with counsel?

6 A I did.

7 Q How many times?

8 A Once.

9 Q And roughly how long?

10 A Forty-five minutes. Thirty minutes.

11 Q And reviewing on your own, how long?

12 A Well, then the rest would be reviewing on
13 my own.

14 Q And how much was the total? I'm sorry.

15 A Could you read back my answer, please.

16 Q I think it was eight hours, maybe less.

17 A Right. So subtract 30 minutes, 45 minutes
18 from -- possibly an hour. The rest was spent
19 reviewing on my own.

20 Is now a good time to take a break?

21 Q Would you like to take a break?

22 A I mean, I wouldn't mind, but --

23 Q Sure.

24 A -- if you're just -- if we're going to go
25 through this in five minutes.

1 MR. ISAJIW: We're about to switch gears,
2 so now is a great time.

3 THE WITNESS: Right. I assumed we were
4 about to. Fantastic. Thank you.

5 THE VIDEOGRAPHER: We're going off the
6 record.

7 The time is 10:35 a.m.

8 (Recess was taken at 10:35 a.m.
9 until 10:45 a.m.)

10 THE VIDEOGRAPHER: We are back on the
11 record.

12 The time is 10:45 a.m.

13 BY MR. ISAJIW:

14 Q Dr. Werner, I want to turn to Appendix A of
15 your report, which is on page 60 and entitled
16 "Primer on Market Efficiency."

17 Are you there?

18 A I am.

19 Q Okay.

20 Did you draft this section, this primer?

21 A Over many years, yes.

22 Q And do you normally include this type of
23 thing in your reports?

24 A It's usually in the body of my report.

25 I've been -- I had been thinking about pulling it

1 out and putting it as an appendix, to make it --

2 Q Okay.

3 In the very first paragraph on paragraph 1
4 on page 60, it says (as read and/or reflected:)

5 The efficient market
6 hypothesis is the foundation of
7 modern finance theory. In essence,
8 a stock trades in an efficient
9 market when all publicly available
10 information is incorporated in the
11 stock price. And any new
12 information that impacts the
13 economic outlook of the firm gets
14 quickly reflected in the stock
15 price.

16 Did I read that correctly?

17 A You did.

18 Q How do you define "quickly"?

19 A I mean, it depends on the situation.

20 I mean, I've seen courts rule that quickly
21 can be a couple days. So within a reasonable amount
22 of time.

23 Q In your view as an economist, does that
24 mean the price should both start and finish reacting
25 to news in one day? Two days? Three days?

1 A Again, it would depend on the situation. I
2 think normally what you would see would be within
3 one day.

4 Q Okay.

5 Would that statement apply to bonds as
6 well?

7 A With the same caveat, yes.

8 Q Have you done it --

9 A Well -- go ahead. Sorry.

10 Q Have you done any test to see if the price
11 reactions for both FXCM common stock and notes meet
12 that definition of quickly here?

13 A Meet that definition of quickly test.
14 Well, I mean, I performed an event study and a
15 news/no-news analysis.

16 Q Okay.

17 Did -- I believe you said that the price
18 for quickly, generally speaking, the price would
19 start and finish reacting to the news within a day?

20 A Correct.

21 I mean, but we see periods of market
22 uncertainty where -- or people -- people -- it takes
23 the market time to fully digest information and the
24 implication of those -- of that information.

25 Q Okay.

1 But so for your event study here, you use
2 one-day returns in your study; is that correct?

3 A That is correct.

4 Q For both the stock and the bond?

5 A Well, let's go -- let's go to what I did
6 with regards to the bond specifically.

7 Q We're going to get there later.

8 Do you recall right now, sitting here
9 today?

10 A I'm trying to answer your question to the
11 best of my ability. So looking at my report will
12 refresh my recollection.

13 Yeah. So -- and I'm looking at
14 paragraph 142 of my report.

15 (As read and/or reflected:)

16 For the notes, the regression
17 data series included only days on
18 which there was a trading price for
19 two consecutive trading days so
20 that a one-day return could be
21 computed.

22 All returns for the Effex --

23 Well, I don't need to read any more.

24 Q Does that refresh your recollection that
25 you used a one-day return for the bond?

1 A Well, with the caveat that it had to have
2 two consecutive trading days.

3 Q You mention in the first paragraph there
4 that an efficient market the information that
5 impacts the economic -- sorry. First paragraph on
6 page 60.

7 A Hold on.

8 MR. HAKLAY: He's there.

9 MR. ISAJIW: Okay.

10 Q That (as read and/or reflected:)

11 The stock price and any new
12 information that impacts the
13 economic outlook of the firm gets
14 quickly reflected in the price.
15 Correct?

16 A That is correct.

17 Q Would you agree that the market, in order
18 to be efficient, must also fully incorporate the new
19 value-relevant news?

20 A I don't know how to answer that.

21 And what I mean by that is there's no
22 assumption that the market has to be fully correct
23 about -- it is an average of what peoples'
24 expectations are. And so people may update their
25 beliefs and stock prices may move based on those

1 updated beliefs.

2 Q So the stock price, when it updates based
3 on updated beliefs, do you believe in order for the
4 market to be efficient it must fully reflect those
5 beliefs and the information at the time?

6 A To the best of the market's ability, yes.

7 Q So both quickly and fully reflect the
8 available information at the time?

9 A Well, again, I've suggested cases where --
10 I mean, let's look at the Coronavirus, right.

11 I don't know. I mean, the market
12 presumably has some expectation of the impact of
13 that and, yet, so if I said to you, well, what's the
14 impact of the Coronavirus on the market? I wouldn't
15 expect that the market would fully incorporate all
16 of the implications of that on one single day,
17 right.

18 And -- I mean, we've seen -- I didn't look
19 at the market today, but when I did look at it
20 earlier, it continued to go down.

21 I don't -- I'm not sure anyone would argue
22 that the S&P 500 was inefficient based on the fact
23 that we were still talking about the Coronavirus.

24 Q Okay.

25 You'll agree with me that the Coronavirus

1 and the stock price reaction to the Coronavirus has
2 nothing to do with the case that we're here talking
3 about today; correct?

4 A Well, we're -- you asked me about stock
5 price reactions. And so that would be one such
6 example; correct?

7 MR. HAKLAY: Don't ask him questions.

8 MR. ISAJIW: Yeah. Thank you.

9 THE WITNESS: All right. Correct. Period.

10 BY MR. ISAJIW:

11 Q You base your work off of the work of other
12 economics and you've cited a number -- other
13 economists and you've cited a number of them in the
14 footnotes of your report; is that correct?

15 A I believe that's accurate.

16 Q Okay.

17 One of those economists is Fama, who
18 drafted a paper in 1970 called the "Efficient
19 Capital Markets: A Review of Theory and Empirical
20 Work" for the "Journal of Finance."

21 And you quote him in Footnote 12 of your
22 report on page 62 of the appendix.

23 A Right.

24 So Footnote 12 of the appendix, not
25 Footnote 12 of my report.

1 Q Yes.

2 Are you on page 62?

3 A Not yet.

4 Q So on Footnote 12, you have -- and towards
5 the bottom of the footnote -- a citation to, it says
6 (as read and/or reflected):

7 (Quoting Efficient Capital
8 Markets: A Review of Theory and
9 Empirical Work, Eugene Fama,
10 "Journal of Finance," 1970).

11 And then you quote (as read and/or
12 reflected:)

13 A market in which prices
14 always, 'fully reflect' available
15 information is called 'efficient.'
16 Do you agree with that?

17 A I agree with that statement, yeah.

18 I agree that that's what I wrote or that's
19 what I quoted from Fama, yes.

20 Q Do you agree with the statement that you
21 quoted, not that you quoted it?

22 A Generally, yes.

23 Q Are you familiar with the concept of price
24 overreaction?

25 A The concept? What do you mean by "the

1 concept"?

2 Q As an economist, if I was to say "stock
3 price overreaction," what would that mean to you?

4 A I mean, it would depend upon the context.
5 Do you mean overreact to information?

6 Q So if a piece of value-relevant information
7 came into the market and the stock price initially
8 increased very quickly, but then reversed in the
9 next few days, would that be consistent with your
10 understanding of an overreaction?

11 A In your -- I would need to know more in
12 order to answer your hypothetical.

13 Q What additional facts would you need in
14 order to determine whether or not that would be
15 consistent with your understanding of an
16 overreaction?

17 A Well, I would need more context in terms of
18 what else -- what was happening during that time
19 period, what was happening to the market, what would
20 happen to comparable companies over that period,
21 what people were saying about the stock at the time.

22 Q Okay.

23 A So there's a whole host of factors that I
24 would need to consider when looking at that.

25 Q Okay.

1 So outside of a specific example, just
2 generally speaking, conceptually, the stock --
3 concept of stock-price overreaction is not something
4 that you're familiar with?

5 A Are you asking: Is it possible for a stock
6 price to overreact?

7 Q No. I'm asking if you're familiar with the
8 concept of stock-price overreaction.

9 A If you want to show me a document that
10 defines it. I'm just not -- it's not clear to me
11 what your definition of --

12 Q I'm trying to get your definition.

13 A Well, and, again, so it would -- it would
14 depend upon the context.

15 Q Okay.

16 What about stock-price underreaction?
17 Conceptually speaking, what does that describe?

18 A Concept -- in general, I guess the -- I --
19 not fully incorporating the news. I don't -- I
20 don't know. I would really need to know more.

21 Again, if you want to put a definition in
22 front of me, I'm happy to answer your question.

23 Q Okay.

24 But sitting here today, as an expert in
25 economics, who teaches several courses in economics,

1 who has drafted a report related to stock-price
2 movement, you have no general definition of either
3 the concept of price overreaction or underreaction
4 in connection with stock prices?

5 A That's not it. I just don't want to give
6 an inaccurate answer.

7 So if you want to put a specific definition
8 in front of me, I will be happy to review that
9 definition and give you my understanding.

10 I mean, presumably there have been papers
11 on this -- on under or overreaction. So I'm just
12 asking that you put it in front of me so we have a
13 common understanding of what you mean.

14 Q Yeah. I'm just looking for your
15 understanding of it.

16 A Well, so, I mean, can a stock overreact to
17 news or underreact to news? Yeah, it's possible.

18 Q If a stock overreacts or underreacts to
19 news, is that a suggestion that the market for that
20 stock is inefficient?

21 A I would need to think more about that.

22 Again, I would need to look at the specific
23 case and the situation around it, or I would need
24 more specifics to answer your hypothetical question.

25 If you want to place a full example in

1 front of me, I would be happy to look at it and then
2 answer your question, but as I sit here today, I'd
3 need more information.

4 Q In connection with your work, sitting here
5 today, did you do any test to confirm whether or not
6 the price of FXCM securities over- or underreacted
7 to value-relevant news?

8 A I'm not sure I've seen specific -- I'm not
9 sure I've seen -- I would need to refresh my memory
10 with regards to specific academic tests for over-
11 and underreaction.

12 Q You need to refresh your memory for those
13 tests to determine if you tested in this case for
14 over- and underreaction?

15 A Well, again, it would inform my opinion --
16 it could be under the context of these tests that
17 you're talking about that I did -- I don't know what
18 these tests do.

19 I'm not sure I -- again, I'm not sure I've
20 specifically seen a test in economics that defines
21 over- or underreaction. My guess is it's some kind
22 of event study. And so to the extent I've performed
23 an event study, I suppose that information would
24 inform my opinion of over- or underreaction.

25 But, again, I would need to know more

1 information in order to answer that question.

2 Q So in connection with your event study, did
3 you evaluate whether or not the price of FXCM
4 securities overreacted?

5 A I found that the -- my findings are that
6 the market for FXCM's equity and notes were
7 efficient during the Class Period. That was my
8 finding. That's what I concluded. That's what I
9 was asked to do. That's what I concluded.

10 I also concluded that damages could be
11 calculated in this case.

12 Q Okay.

13 So you did not evaluate whether or not they
14 over- or underreacted?

15 A Again, I'm not sure what you mean by
16 "evaluate" because I don't know -- I'd need to fully
17 understand these tests that you are describing.

18 Q I just want to know what test you
19 conducted.

20 A And I -- I've answered your question.

21 Q Okay.

22 Generally speaking, is it possible for a
23 market to be efficient at one point in time but not
24 another?

25 A Is it possible?

1 Q Yes.

2 A I mean, I -- yeah, I believe it is
3 possible.

4 Q So if you tested the efficiency of FXCM
5 securities in 2010, would that tell you whether or
6 not the market for the same securities would be
7 efficient today?

8 A No.

9 Q Okay.

10 And if you tested the efficiency of a
11 security in 2010 and today, would that tell you
12 whether the market for that security would be
13 efficient throughout 2015?

14 A So I looked at two snapshots in time.
15 That -- is it possible? It's possible. My guess is
16 it would not be sufficient to determine -- to opine
17 upon market efficiency.

18 Q And is that true for both stocks and notes?

19 A Yes.

20 Q Okay.

21 Generally speaking, would stocks and bonds
22 react differently to the same types of information?

23 A It's certainly possible.

24 Q Okay.

25 Why so?

1 A Bondholders are typically more concerned
2 with bankruptcy risks because they're senior
3 securities. Equityholders, while still probably
4 concerned about a firm's bankruptcy, less so.

5 Q So if a company's stocks and bond react
6 differently to the same news -- sorry -- strike
7 that.

8 Can a security -- can a company's
9 securities stocks and bonds react differently to the
10 same news in an efficient market?

11 A When you say "differently," do you mean in
12 different directions?

13 Q Yes.

14 A So, like, one went -- goes up and one goes
15 down?

16 Q That would be one example of differently.

17 A Okay.

18 So in that example, yes, that's certainly
19 possible.

20 Q It's possible that they would react in
21 different directions?

22 A Yeah, I've seen that before.

23 Q And can that happen in an efficient market?

24 A Yes.

25 Q If that happens, could it also be evidence

1 that either the stock or the bond is trading in an
2 inefficient market?

3 A As I sit here today, I have no reason to
4 conclude that.

5 Q Hypothetically possible?

6 A Right. In your hypothetical -- well, so
7 hypo- -- in your hypothetical, is it -- so you're
8 asking me, hypothetically, is it possible that if a
9 stock and a bond for the same company moved in a
10 different direction, that one of those securities
11 was inefficient?

12 It is possible.

13 Q Okay.

14 Would that suggest inefficiency?

15 A As I sit here, I have no reason to believe
16 that it would necessarily suggest inefficiency based
17 on your current hypothetical question.

18 Q Do you have any basis in your methodology
19 to determine what types of news would cause a stock
20 and a bond to react similarly or differently?

21 A I don't understand the question.

22 Q Before actually conducting an event study,
23 would you have a general sense of what type of news
24 would cause stocks and bonds to react differently?

25 A And I'm trying to -- I have been trying to

1 think about that as we have it -- we've had this
2 conversation.

3 I should be able to answer your question.
4 I need -- but I need to think more about it. It is
5 certainly something I have been considering as we
6 have been having this conversation.

7 Q If a piece of news had clear positive
8 implications for a company's asset value and the
9 bond was trading substantially below par, would you
10 expect the bond and the stock to be more likely to
11 react to the news that had a positive value for the
12 firm's asset or have a similar reaction?

13 A Yeah, that's a completely incomplete
14 hypothetical. Like, I can't answer, as I sit here
15 today.

16 Q Okay.

17 What additional information would you need?

18 A I don't know. If you want to place the
19 question in front of me, I will be happy to look it
20 over and try to opine upon what additional
21 information I would need.

22 But as it is, it's a compound, complex,
23 hypothetical example.

24 And so it would be completely speculative
25 on my part to attempt to answer it without knowing

1 more.

2 Q Generally speaking, if a bond was a
3 convertible bond, meaning convertible into equity,
4 would it be more or less likely to react differently
5 to news in the market?

6 A Differently than the equity?

7 Q Yeah.

8 A I would have to think more about that, as I
9 sit here.

10 As I sit here today, I'm not sure.

11 Q Looking back at your appendix. In
12 paragraph 3 you say (as read and/or reflected:)

13 While financial economists
14 rely on event study analysis as
15 direct evidence demonstrating stock
16 price response to new information,
17 they accept other factors as
18 tending to support the existence of
19 an efficient market for security.

20 For example, financial
21 economists have argued that trading
22 volume is correlated with the
23 market sufficiency, such that the
24 higher the trading volume, the more
25 likely it is to be efficient.

1 Did I read that correctly?

2 A That is correct.

3 Q What do you mean when you say they -- (as
4 read and/or reflected):

5 Financial economists accept
6 other factors as tending to support
7 the existence of an efficient
8 market?

9 A Well, I mean off the top of my head,
10 generally, the Cammer and Krogman factors would be
11 included in that.

12 I'm not sure I've actually ever seen any
13 economic study that's looked at S3 eligibility as a
14 function of market efficiency.

15 Q Okay.

16 And what do you mean by the "Cammer
17 factors"?

18 A The Cammer and Krogman factors as listed in
19 my report. I'm happy to --

20 Q Just wondering if you can summarize them
21 off the top of your head.

22 A Sure.

23 Q I think we can probably get on the same
24 page pretty quickly here, but we're talking about
25 average weekly trading volume as one; is that

1 correct?

2 A That is correct.

3 Q And analyst coverage as a second?

4 A Correct.

5 Q Market makers as part of the third?

6 A And listing on the NYSE, yes.

7 Q Okay.

8 Eligibility for S3 registration?

9 A That is a Cammer factor.

10 Q And price reaction to new information?

11 A I believe -- yeah. I mean, the fifth
12 Cammer specifically says, and I'm reading from
13 page -- paragraph 44 (as read and/or reflected):

14 It would be helpful to have
15 empirical facts showing a cause and
16 effect relationship between
17 unexpected corporate events or
18 financial releases and an immediate
19 response in the stock price.

20 Q Okay.

21 THE WITNESS: Can we pause for a second?

22 Or could one of you get me a Diet Coke?

23 MR. HAKLAY: I think I took the last one.

24 THE WITNESS: I'm sure King & Spalding has
25 more.

1 BY MR. ISAJIW:

2 Q So in the paragraph of your appendix, which
3 I believe is paragraph 3 that I just read.

4 A Okay. So remind me. We're on page 60
5 something?

6 MR. HAKLAY: 61.

7 THE WITNESS: 61.

8 BY MR. ISAJIW:

9 Q 61, paragraph 3 of Appendix A.
10 You said (as read and/or reflected:)

11 These other factors -- I'm
12 sorry -- financial economists
13 accept these other factors,
14 including the Cammer factors, as
15 tending to support the evidence of
16 an efficient market.

17 What do you mean by "tending to support"?

18 A I guess just the general definition of
19 tending.

20 Q Are they direct proof of the market
21 efficiency?

22 A Well, so yours is a complicated question
23 and this is why.

24 You know, there's -- courts have ruled
25 stocks efficiencies ignoring, in fact, Factor 5. And

1 so, I mean, is it sufficient to just look at the
2 first four factors?

3 Certainly courts have found it's sufficient
4 to look at the first four factors.

5 I think most academics would agree that you
6 want to look and see if there's a cause and effect
7 relationship between a stock and information to
8 determine whether or not a stock was efficient. Or
9 a bond for that matter.

10 Q Okay.

11 In your view, how many Cammer factors would
12 have to be satisfied to find a market for a security
13 efficient?

14 A I have no opinion about that. I've
15 never -- nor have I ever been asked to opine upon
16 that.

17 Q Okay.

18 For example, if analyst coverage was very
19 high, but trading very low, would that be
20 sufficient?

21 A Again --

22 MR. HAKLAY: Objection. Sufficient to
23 what?

24 MR. ISAJIW: Determine the market to be
25 efficient.

1 MR. HAKLAY: Thank you.

2 THE WITNESS: From an academics perspective
3 or a court's perspective?

4 BY MR. ISAJIW:

5 Q From an academics perspective.

6 A I have no idea. It's not anything I've
7 ever thought about.

8 MR. HAKLAY: Here's four Diet Cokes for
9 you.

10 THE WITNESS: Sorry. They're trying to get
11 me hopped up on caffeine. Are we off the record for
12 that? I know. I'm joking. Sorry. You'll edit the
13 video.

14 BY MR. ISAJIW:

15 Q When conducting market efficiency analysis
16 in evaluating the Cammer factors, are there any
17 factors that you would feel comfortable excluding in
18 your determination that a market is efficient?

19 A So now we're just talking about the Cammer
20 factors?

21 Q Yes.

22 A I would need to think about it. I mean,
23 again, I don't think S3 eligibility really plays
24 into market efficiency.

25 I mean, it has to do with firm size, I

1 suppose, and their ability to file financials.

2 Is there anyone I would ignore?

3 Again, it's not a question I've ever asked
4 myself. I mean, the court demands that I opine on
5 these factors, or at least case law has suggested I
6 need to opine on the factors and the court will then
7 decide whether or not the market for that stock is
8 efficient.

9 So it's not anything I've thought about
10 other than S3.

11 Q Okay.

12 What if there was insufficient data to
13 conduct an event study, for instance?

14 A So, again, so your hypothetical is there's
15 insufficient information to conduct an event study.
16 And I guess my question would be why? Because
17 that --

18 Q Say there was not enough trading to conduct
19 an event study over a specific period.

20 A I'm sorry. I just -- I don't understand
21 your hypothetical example or your hypothetical
22 question.

23 I'm not -- have I ever seen literature
24 discussing the number of days needed to conduct an
25 event study?

1 I'm not sure I have, as I sit here today.

2 Q Do you have a personal opinion -- I'm
3 sorry.

4 Do you have a professional opinion?

5 A It's not something I've ever thought about.

6 Q Let's dig in a little bit more into the
7 specific Cammer factor. So No. 1 was average weekly
8 trading volume.

9 Why is trading volume an important measure
10 of market efficiency, in your opinion?

11 A It's -- well, let's go to my report.

12 Q So --

13 A I'm trying to read my report. Hold on one
14 second.

15 Yeah. I mean, it's -- again, it's not
16 something I've thought about. It's something that
17 the court demand.

18 Q What, in your view, would be the
19 implication for market efficiency if a security had
20 high trading volume?

21 A In general, I think economists believe that
22 higher trading volume is an indicator of efficiency.
23 But, again, it's -- it's not something I've ever
24 considered.

25 I mean, there is a benchmark the courts

1 have used of 1 and 2 percent. I don't know if, you
2 know, if it's 50 percent, is it somehow more
3 efficient than a stock that's average weekly trading
4 volume is 30 percent? It's not something I really
5 thought about.

6 Q What would be the implication if trading
7 volume was very low in terms of market efficiency?

8 MR. HAKLAY: Objection. Vague as to the
9 words "very low."

10 THE WITNESS: Yeah. Again, I'm not --
11 there's no -- again, the court asked me to provide
12 my opinion on this or provide my analysis with
13 regards to this factor. So I've provided this
14 analysis.

15 It -- yours is a question I've never really
16 thought about.

17 BY MR. ISAJIW:

18 Q If a security had low trading volume or no
19 trading volume, you've never thought about whether
20 or not that would weigh on the efficiency of the
21 market for that security?

22 MR. HAKLAY: Objection as to the word "low"
23 as being vague.

24 THE WITNESS: Well, I mean, certainly --
25 for instance, I mean, we've seen bond cases where

1 there's no trading volume on a number of days. And
2 the courts have found the market for those bonds are
3 efficient.

4 So, you know, it's not something that I
5 personally think about. To the extent that a court
6 might think about it, I don't know. You could ask
7 the judge or what his or her opinion is about that.

8 BY MR. ISAJIW:

9 Q I'm asking you for your opinion as an
10 expert who has rendered a report discussing Cammer
11 Factor 1 and the effect of weekly trading volume on
12 inefficiency analysis.

13 And if your answer is you've never thought
14 of it, that's fine, but I'm asking what your opinion
15 is.

16 THE WITNESS: Could you reread his original
17 question, please.

18 (The record was read back as
19 follows:

20 "Question: If a security had
21 low trading volume or no trading
22 volume, you've never thought about
23 whether or not that would weigh on
24 the efficiency of the market for
25 that security?"

1 MR. HAKLAY: Same objections I rendered
2 before.

3 THE WITNESS: Yeah. You would need to look
4 at that on a case-by-case basis.

5 BY MR. ISAJIW:

6 Q So in the case of no trading volume.

7 A I refer to my previous answer with
8 regards --

9 Q Which was what?

10 A I told you, I found that there are --
11 certainly have been bonds with no trading volume or
12 on days which found -- which courts have found to
13 have been traded in an efficient market.

14 Q And as an economist, do you have a view as
15 to whether or not that is an indication of an
16 efficient market?

17 A I have no opinion one way or the other.

18 Q Let's talk about analyst coverage, which is
19 the Cammer Factor 2.

20 Why, in your view, is analyst coverage an
21 indicator for market efficiency?

22 A Well, I mean, I refer to this quote from
23 the Cammer cover. And I'm looking at paragraph 26
24 of my report.

25 (As read and/or reflected:)

1 When investment professionals
2 closely monitor a firm's
3 information subsequently making
4 buy/sell recommendations to their
5 clients based on that information,
6 investors bid up or down the market
7 price of the stock to reflect the
8 company's financial information as
9 interpreted by the securities
10 analyst.

11 So that's what the court finds.

12 Q So I'm asking about your professional
13 opinion as an expert economist.

14 What would be the implication if a company
15 has very high analyst coverage?

16 A Well, the implication would be that a lot
17 of analysts follow the company.

18 Q In terms of whether or not the company
19 trades in an efficient market.

20 A I think in -- I mean, I'm not quite sure
21 how to answer the question.

22 I know -- again, I think -- let's look
23 for -- yeah. Right.

24 So, for instance, and I'm reading from
25 paragraph 26 of my report, this suggests that (as

1 read and/or reflected:)

2 The more analysts who followed
3 a stock, the greater the likelihood
4 that a stock traded in an efficient
5 market.

6 I should have started this next sentence
7 here. (As read and/or reflected:)

8 Barber, et al, 1994, found
9 that coverage by one or two
10 analysts strengthened the
11 presumption of efficiency for a
12 publicly traded stock.

13 Q So other than quoting from Barber, in your
14 opinion, what is the implication of high analyst
15 coverage?

16 A What's the implication? My -- my -- the
17 implication is a lot of analysts follow the stock.
18 Probably a large -- large company.

19 Q What would be in the implication in a
20 market efficiency analysis if very few analysts
21 covered a stock?

22 MR. HAKLAY: Okay. Vague as to what "very
23 few" means.

24 THE WITNESS: Right. Again, I mean, the --
25 my best understanding with regards to academic work

1 is the work by Barber who basically -- Barber,
2 et al, who found that one or two -- well, let's just
3 read it again.

4 BY MR. ISAJIW:

5 Q Before you read it, I'm just asking for
6 your view, sitting here today, as an expert
7 economist.

8 A Right. My view is informed by their paper.

9 Q Do you have a view independent of the
10 paper?

11 A No.

12 Q Okay.

13 When you are conducting a market efficiency
14 analysis, how many analysts do you believe are
15 required to cover a company before you believe it is
16 an indicator of an efficient market?

17 A Again, I would have to look at that on a
18 case-by-case basis. Clearly in this case, I believe
19 that, as I've found -- let's just go to what I said
20 with regards to my finding.

21 Right. So I'm reading from, excuse me,
22 paragraph 32 of my report.

23 (As read and/or reflected:)

24 The number of analysts
25 covering FXCM and the wide

1 dissemination of information about
2 FXCM from Company press releases
3 and from well-regarded and widely
4 read sources in the news media
5 support a finding of market
6 efficiency for FXCM common stock
7 during the Class Period.

8 And I -- that's for the equity.

9 If you want me to opine on the bonds as
10 well, I'm happy to review my findings.

11 Q Did you draft that paragraph?

12 A Yes.

13 Q If there is a period of a year or two where
14 only three analysts issued reports on FXCM, would
15 you believe that that is sufficient under Cammer
16 Factor 2?

17 MR. HAKLAY: Objection. Assumes facts not
18 in evidence.

19 THE WITNESS: It's not my opinion -- it's
20 not -- or it's not my job to form an opinion on your
21 hypothetical example.

22 I present the information to the courts.
23 In this case, I found that there was sufficient
24 analyst coverage to indicate market efficiency in
25 this specific case.

1 BY MR. ISAJIW:

2 Q So sitting here today, you can't answer the
3 question that if there was a period of a year where
4 only two or three analysts issued reports on FXCM,
5 whether you would believe that that would be
6 sufficient under Cammer Factor 2?

7 MR. HAKLAY: Objection. Misstates his
8 testimony. It's asked and answered.

9 THE WITNESS: It certainly could be
10 efficient -- I mean, sorry. It certainly could be
11 sufficient.

12 BY MR. ISAJIW:

13 Q Let's talk about Cammer Factor 3. This is
14 under your heading "Market Makers and Listing on the
15 NYSE."

16 Why is the existence of market makers an
17 indication of efficiency, in your view?

18 A Well, I mean, I think it largely agrees
19 with the -- my view coincides with the Cammer
20 court's opinion that (as read and/or reflected:)

21 The existence of market
22 makers -- and I'm reading from
23 paragraph 33 of my report -- and
24 arbitrageurs would ensure
25 completion of the market mechanism;

1 these individuals would react
2 swiftly to company news and
3 reported financial results by
4 buying or selling stock and driving
5 it to a changed price level.

6 BY MR. ISAJIW:

7 Q Independent of the report, as an economist,
8 what would be the -- your view of the implication if
9 there were no market makers for a security in
10 connection with an efficiency analysis?

11 A Well, so what do you mean by "market
12 maker"?

13 And I mean that -- do you mean someone who
14 is designated as a market maker whose job title is
15 market maker?

16 Q In what context did you mean market maker
17 when you wrote it in your report?

18 A My understanding of the Cammer court --

19 Q Was it --

20 A -- opinion.

21 Q -- somebody who was designated as a market
22 maker?

23 A Right. So there is a title of a designated
24 market maker in an NYSE stock.

25 Is that what you're referring to?

1 Q I'm asking what you were referring to when
2 you used the phrase "market maker" in the report.

3 Were you referring to somebody who was
4 designated as a market maker?

5 A So I don't know exactly what you mean by
6 "designated."

7 And let me explain why.

8 Because there is a position called a --
9 there is someone called a "designated market maker"
10 for each NYSE stock. Or at least one for each NYSE
11 stock.

12 So I wouldn't, like, necessarily
13 consider -- I mean, there are NASDAQ market makers.
14 I don't know if you would consider them designated
15 market makers.

16 There are people who are making markets off
17 the floor. I don't know if you would consider them
18 designated market makers.

19 Q I'm asking if you consider them designated
20 market makers.

21 A Again, if you -- I don't believe -- I
22 believe that there are many individuals or companies
23 making markets in a stock that are not -- that do
24 not fall under the definition of a designated market
25 maker as explained or it's laid out by the NYSE.

1 Q In this case, can you give me any examples
2 of those entities?

3 A Which entities?

4 Q The ones you just described who are making
5 a market in a stock but are not designated market
6 makers under your definition.

7 A Well, it -- well, so I do not know and,
8 again, this is based on a mis- -- a clear definition
9 of a designated market maker. Certainly Barclays
10 Capital, BNY Mellon Capital Markets, JPMorgan,
11 Morgan Stanley and Wedbush Morgan Securities made a
12 market in this stock.

13 If we want to go to a complete list of
14 market makers who made a market in the stock during
15 the Class Period, we can go to my Exhibit 5.

16 MR. HAKLAY: Page 114.

17 THE WITNESS: Right. So there's multiple
18 firms here. I don't -- what is it? 180, I believe.
19 No. I'm sorry. It goes on to 115. So 205. I
20 don't know if any of those are designated market
21 makers as you -- because you have not defined
22 designated market maker for me.

23 Again, if you're talking about the --
24 a designated market maker on the New York Stock
25 Exchange as defined by the New York Stock Exchange,

1 as I sit here today, I don't know.

2 BY MR. ISAJIW:

3 Q In paragraph 34, you indicate that there
4 were at least 205 market makers for FXCM common
5 stock.

6 Did I read that correctly?

7 A I'm sorry. What paragraph?

8 Q 34, page 14.

9 A Page 34. Yes. That is correct.

10 Q Okay.

11 In your opinion, does the fact that there
12 were at least 205 market makers for FXCM common
13 stock tend to support the idea that the market for
14 FXCM common stock was efficient?

15 A I believe that -- and I'm reading from
16 page 38 in my report. (As read and/or reflected:)

17 The large number of market
18 makers ... supports that FXCM
19 common stock traded in an efficient
20 market.

21 MR. HAKLAY: Let me just correct it. You
22 read from paragraph 38, not page 38.

23 THE WITNESS: Oh, sorry.

24 BY MR. ISAJIW:

25 Q What would be the implication if there were

1 no market makers for FXCM common stock in terms of
2 an analysis of market efficiency?

3 A I mean, I don't -- I haven't really thought
4 about your hypothetical.

5 I mean, because I'm not clear. My
6 understanding, I -- sorry.

7 If we're talking about designated market
8 makers defined by the NYSE, it wouldn't have an
9 effect necessarily.

10 I mean, people make markets off the floor.
11 So -- I'm sorry. Let's --

12 Q If somebody made a market in any --

13 A -- what --

14 MR. HAKLAY: He's still answering.

15 THE WITNESS: Can you -- can you reread his
16 question, please.

17 (The record was read back as
18 follows:

19 "Question: What would be the
20 implication if there were no market
21 makers for FXCM common stock in
22 terms of an analysis of market
23 efficiency?")

24 THE WITNESS: I mean, that's honestly
25 never -- something I've never even thought about.

1 BY MR. ISAJIW:

2 Q What if there were instead of 205 market
3 makers, 100 market makers?

4 A That's not anything I've considered.

5 Q What if there were 50 market makers?

6 A Again, not a question I've asked myself.

7 Q What if there were less than ten market
8 makers?

9 A Yeah. It would depend upon the situation.

10 Q But sitting here today, you can express no
11 view as to whether or not that would have an
12 implication for a market efficiency analysis?

13 MR. HAKLAY: Objection. Misstates his
14 testimony.

15 THE WITNESS: It might have an implication.

16 BY MR. ISAJIW:

17 Q And if it had an implication, what would
18 your view be on the implication it has?

19 MR. HAKLAY: Objection. Assumes facts not
20 in evidence. Asked and answered.

21 Go ahead.

22 THE WITNESS: Okay.

23 I would need to look at that on a
24 case-by-case basis.

25 ///

1 BY MR. ISAJIW:

2 Q So currently, you cannot -- you do not have
3 a view of the implication?

4 MR. HAKLAY: Objection. Misstates. Asked
5 and answered.

6 THE WITNESS: Again, I would need to look
7 at it on a case-by-case basis.

8 BY MR. ISAJIW:

9 Q You also note in this section of your
10 opinion, you discuss the fact that FXCM's common
11 stock was listed on an exchange; is that correct?

12 A Where are you reading from?

13 Q I'm not reading from your report. I'm
14 just ...

15 Let's take it outside of the context of the
16 report.

17 Do you know whether or not FXCM's common
18 stock was listed on an exchange?

19 A It was -- yeah. It was -- yes.

20 Q Okay.

21 Was the fact that FXCM's common stock was
22 listed on an exchange relevant to your analysis as
23 to whether or not FXCM's common stock traded in an
24 efficient market?

25 A Well, to the extent that some judges find

1 it helpful to be informed upon that question, I
2 included that information.

3 Q In your view as an economist, is that
4 relevant information to the analysis of whether or
5 not FXCM stock traded in an efficient market?

6 A I'm not sure it's something I've ever
7 really thought about.

8 So in your hypothetical, the stock doesn't
9 trade on an exchange?

10 Q I haven't posed a hypothetical. I'm just
11 asking if whether or not the fact that you cite in
12 your report that FXCM common stock did, in fact,
13 trade on an exchange is relevant to your analysis of
14 whether or not FXCM common stock traded in an
15 efficient market.

16 MR. HAKLAY: Objection. That question was
17 asked and answered.

18 THE WITNESS: It formed my opinion that it
19 traded in an efficient market.

20 BY MR. ISAJIW:

21 Q Okay.

22 In what way did it inform your opinion --
23 strike that.

24 Let me ask a better question.

25 Is being listed on an exchange an indicator

1 of efficiency, in your opinion?

2 A In my opinion? I believe that courts rely
3 on that information to determine market efficiency.

4 Q When you were making a determination of
5 market efficiency, do you rely on that information?

6 A I don't know if I've ever really thought
7 about it.

8 I mean, can you give me -- well, I'm not
9 supposed to ask questions. I apologize.

10 Q In your opinion, if a security was not
11 listed on any exchange, would that have a bearing on
12 whether or not it trades in an efficient market?

13 MR. HAKLAY: Objection. Asked and
14 answered.

15 THE WITNESS: It's possible. I mean, when
16 you say "exchange," what do you mean?

17 BY MR. ISAJIW:

18 Q When -- have you ever heard the phrase
19 "listed on an exchange" before?

20 A I have.

21 Q What is your understanding of the phrase
22 "listed on an exchange"?

23 A Well, it's going to vary from place to
24 place. I mean, my -- if I had to guess what your
25 definition of exchange was, you would probably be

1 talking about the NYSE or the NASDAQ.

2 We're sitting, I don't know -- I don't know
3 actually. Do they still have the Los Angeles Stock
4 Exchange?

5 Certainly there's a San Francisco Stock
6 Exchange. I don't know if that would fall under
7 your definition --

8 Q So if all of --

9 A I'm trying to answer the question, please.
10 I'm not sure if that would fall under your
11 definition of exchange.

12 And then, of course, stocks are traded off
13 markets between companies. I don't know if you
14 would consider that an exchange.

15 Q In this analysis for FXCM common stock, do
16 you have an opinion as to whether or not it would be
17 an indication of market efficiency if FXCM common
18 stock did not trade on the NYSE?

19 A If it did not -- so the fact alone that it
20 did not trade on the --

21 THE WITNESS: Could you reread the
22 question, please.

23 (The record was read back as
24 follows:

25 "Question: In this analysis

1 for FXCM common stock, do you have
2 an opinion as to whether or not it
3 would be an indication of market
4 efficiency if FXCM common stock did
5 not trade on the NYSE?")

6 MR. HAKLAY: Objection. Assumes facts not
7 in evidence. Not a hypothetical, but couched as
8 one.

9 MR. ISAJIW: I don't believe I couched that
10 as a hypothetical. I was just asking about his
11 opinion.

12 MR. HAKLAY: Okay.

13 Assumes facts not in evidence. Asks him to
14 consider a situation that doesn't exist in his
15 report.

16 THE WITNESS: So in your hypothetical
17 example, you're suggesting that if -- if FXCM didn't
18 trade on the NYSE, would that inform my opinion or
19 would that inform my opinion about market
20 efficiency?

21 Probably not. I mean, it can -- certainly
22 there are all sorts of other exchanges it can trade
23 on. Like the NASDAQ, which it did.

24 So I don't -- it's a really odd question.
25 I'm not quite sure I --

1 BY MR. ISAJIW:

2 Q What if it traded on no exchanges?

3 MR. HAKLAY: Same objection.

4 THE WITNESS: Again, it's not something
5 I've ever thought about. I mean, what do you --
6 what's a world with no exchanges? So it's traded
7 within -- just between, let's say, institutional
8 investors? Is that the world you're imagining?

9 I think I'm okay in asking this question
10 because I'm clarifying his hypothetical example.

11 BY MR. ISAJIW:

12 Q Let's take that as an example.

13 A You know, that's something I would need to
14 think about. I mean, there's no reason to think
15 that if stocks are traded off exchanges between two
16 parties that the stock is inefficient -- that a
17 stock is not efficient.

18 Q There's no reason to believe that if a
19 stock is just traded between two parties that it
20 doesn't trade in an inefficient market?

21 MR. HAKLAY: Objection. Misstates his
22 answer as to completeness.

23 But go ahead.

24 THE WITNESS: Again, I -- you would need to
25 look at this type of thing on a case-by-case basis.

1 I mean, again, I gave you a hypothetical
2 example, and I'm not -- I'm not even sure how to
3 answer my own hypothetical example.

4 And I clearly -- I'm not quite sure how to
5 answer your hypothetical example.

6 BY MR. ISAJIW:

7 Q Does listing on an exchange in and of
8 itself mean that the security trades in an efficient
9 market?

10 A Does trading on an exchange --

11 THE WITNESS: Could you reread the
12 question, please.

13 (The record was read back as
14 follows:

15 "Question: Does listing on an
16 exchange in and of itself mean that
17 the security trades in an efficient
18 market?")

19 THE WITNESS: I think courts have certainly
20 found that to be the case.

21 BY MR. ISAJIW:

22 Q And what about your professional opinion?

23 A It's not any -- it's not something I've
24 thought about.

25 I don't think anyone's ever asked me that

1 question before.

2 Q And when you conduct your market efficiency
3 analysis, do you have a professional opinion as to
4 whether any of the Cammer factors are more important
5 for finding of efficiency than others, generally
6 speaking?

7 A That's an interesting question.

8 Let's go to my discussion in Factor 5.

9 I mean, I think economists, when they talk
10 about market efficiency, oftentimes discuss event
11 studies. But as I've stated previously, you know,
12 we're seeing an increasing number of courts find for
13 market efficiency ignoring the fifth Cammer factor.

14 Q When you say "economists," do you include
15 yourself in that statement?

16 A I do.

17 Q Okay.

18 So do you believe that Factor 5 is one of
19 the more important Cammer factors in a market
20 efficiency analysis?

21 A It's not something I've ever been asked to
22 opine upon.

23 I present the information that courts use
24 to determine market efficiency. And so I do event
25 studies.

1 Q What is an event study designed to analyze?

2 Let me withdraw that question.

3 Is it fair to say that you use an event
4 study to try to determine whether or not there's a
5 cause and effect relationship between new material
6 information and the reaction in the stock price
7 establishing -- to establish market efficiency?

8 A Is that stated somewhere in my report? It
9 sounds like something from my report.

10 Q I'm asking if you agree with the statement.

11 A Well, if the statement is in the report, I
12 would like to see the statement.

13 Q Other than -- I'll point you to the
14 paragraph where you discuss it, but before I do, you
15 can't answer it without reference to the report?

16 A I just want to be as accurate as possible.
17 We are trying to be as accurate as possible here;
18 right?

19 Q We are.

20 A Well, so if you're reading from something
21 from my report, by all means, let me look at it.

22 Q It's paragraph 52.

23 A So it is from my report.

24 Okay.

25 Q Now that you've reviewed paragraph 52, is

1 it fair to say that you conduct an event study to
2 determine if there is a cause and effect
3 relationship between new material information and
4 the reaction in the stock price in order to help
5 establish market efficiency?

6 A I believe that is correct.

7 Q In your view, if there is information that
8 is new and material but the security price does not
9 react, does that suggest that the market is not
10 efficient?

11 A No.

12 Q What if the information is new and material
13 and the security doesn't trade at all, does that
14 suggest that the market is not efficient?

15 A Not necessarily.

16 Q Can you -- in the presence of new and
17 material information -- sorry -- strike that.

18 If a security does not react to new and
19 material information in terms of price and does not
20 trade based on new and material information, do you
21 believe that has any bearing on whether or not the
22 security trades in an efficient market?

23 MR. HAKLAY: Objection. Vague as to "any
24 bearing."

25 THE WITNESS: Not necessarily.

1 BY MR. ISAJIW:

2 Q Would you incorporate that into your
3 analysis of market efficiency?

4 A What do you mean by "incorporate"?

5 Q Would you incorporate -- sorry.

6 When you analyze market efficiency, if you
7 encountered a situation where you believed there was
8 new and material information but the price did not
9 react, would that be relevant to your market
10 efficiency analysis?

11 A Possibly.

12 I mean, if I -- if a firm announces
13 earnings, I would argue that that information was
14 material. If that earnings announcement was in line
15 with expectations, I wouldn't necessarily expect to
16 see a stock price movement.

17 I mean, that would just be one such
18 example.

19 Q In that example, if the announcement was in
20 line with expectations, would it be new?

21 A To the extent that the company is stating
22 it? I mean, there's all sorts of things in an
23 earnings report.

24 So, I mean, without -- I mean, my guess is,
25 yeah, there's certainly some information in there.

1 I mean, is confirmation of expectations new
2 information? I mean, from a philosophical
3 standpoint? I would think so.

4 Q From an economist's standpoint, do you
5 agree with that?

6 A Well, I think the information -- I think
7 information -- let's say -- let's go back to my
8 example.

9 I believe that that information, even if
10 it's just confirming expectations, is material to
11 investors.

12 I would not nec- -- but, again, even with
13 that being material information and it is new to the
14 fact that it has confirmed previous expectations,
15 that would be something that would interest the
16 investing public. And all other things equal, in a
17 vacuum, I wouldn't necessarily expect the stock
18 price to move.

19 Is now a good time for a break?

20 MR. HAKLAY: It's been about 57 minutes.

21 THE WITNESS: Is that a "yes" or "no"?

22 I would like to take a break.

23 MR. ISAJIW: Okay.

24 We can go off the record.

25 MR. HAKLAY: Okay.

1 THE VIDEOGRAPHER: We are going off the
2 record.

3 The time is 11:42 a.m.

4 (At 11:42 a.m., the deposition of
5 ADAM WERNER, Ph.D., was adjourned
6 for noon recess.)

7 ///

8 ///

9 (At 12:37 p.m., the deposition of
10 ADAM WERNER, Ph.D., was
11 reconvened.)

12 THE VIDEOGRAPHER: We are back on the
13 record.

14 The time is 12:37 p.m.

15

16 EXAMINATION (Continued)

17 BY MR. ISAJIW:

18 Q Dr. Werner, I want to take you back to
19 Exhibit 4 of your report where you tally the number
20 of reports issued by analysts during the Class
21 Period in this case. Page 104.

22 Was it important, in your view, that these
23 analysts issued a report as opposed to just
24 attending FXCM's earnings calls in connection with
25 your market efficiency analysis?

1 A Again, I just present the information that
2 the courts ask for. So if they want to know about
3 analyst's coverage, that's one of the Cammer
4 factors, that's what I present them with.

5 Q When you're analyzing the Cammer factors,
6 it's not an important part of your analysis? You're
7 literally just presenting the facts?

8 A No. I mean, I read the analyst reports,
9 review the analyst reports, but if you're asking
10 me --

11 THE WITNESS: Can you repeat his initial
12 question, please.

13 (The record was read back as
14 follows:

15 "Question: Dr. Werner, I want
16 to take you back to Exhibit 4 of
17 your report where you tally the
18 number of reports issued by
19 analysts during the Class Period in
20 this case. Page 104.

21 Was it important, in your
22 view, that these analysts issued a
23 report as opposed to just attending
24 FXCM's earnings calls in connection
25 with your market efficiency

1 analysis?")

2 THE WITNESS: That's not something I've
3 ever thought about.

4 BY MR. ISAJIW:

5 Q And there are a number of reports listed
6 here. Again, in your view, if there was a period of
7 time for a year or two where only one or two
8 analysts covered the report, would that be relevant
9 to your market efficiency analysis?

10 A It's possible.

11 Q Okay.

12 Is it something that you considered here?

13 A I found that based on analyst coverage
14 and -- the analyst coverage for this stock supported
15 my finding on market efficiency.

16 Q Let's switch back to Cammer Factor 3 in
17 connection with the common stock, which is
18 paragraph 34 of your report.

19 A I'm sorry. Does Exhibit 4, doesn't
20 Exhibit 4 deal with Cammer Factor 3 or --

21 Q Exhibit 4 is analyst coverage; is that
22 right?

23 A Yeah.

24 Q In your view, is analyst coverage Cammer
25 Factor 3?

1 A Well, it says (as read and/or reflected:)

2 Factor 3: Prominent

3 Underwriters and Market Makers.

4 You suggested it was different the way you
5 posed your question.

6 Q Maybe we misunderstood. I was saying, I
7 want to go and focus now on Cammer Factor 3,
8 paragraph 34, of your report.

9 Where am I?

10 A Paragraph -- oh, sorry.

11 MR. HAKLAY: The market makers.

12 MR. ISAJIW: Yes.

13 MR. HAKLAY: Okay.

14 Analyst coverage is the early one.

15 MR. ISAJIW: I was trying to move from
16 analyst coverage to market makers --

17 THE WITNESS: Oh, I'm sorry.

18 MR. ISAJIW: -- well, to Cammer Factor 3
19 more generally.

20 MR. HAKLAY: Got you. Thank you.

21 THE WITNESS: Okay.

22 BY MR. ISAJIW:

23 Q So if you look at paragraph -- I'm sorry --
24 33 of your report on page 14, second sentence, it
25 says (as read and/or reflected:)

1 The Cammer court stated,
2 quote, the existence of market
3 makers and arbitrageurs would
4 ensure completion of the market
5 mechanism; these individuals would
6 react swiftly to company news and
7 reported financial results by
8 buying or selling stock and driving
9 it to a changed price level.

10 Did I read that correctly?

11 A That is correct.

12 Q Okay.

13 What is your understanding of arbitrageurs,
14 as you use it in that sentence?

15 A People who are trying to make arbitrage
16 profits. Not in your common academic definition of
17 arbitrage, but ...

18 Q What is the common academic definition of
19 arbitrage?

20 A I think ac- -- and you'll forgive me. It's
21 been years since I've actually looked at the formal
22 definition. I believe it is making a riskless
23 profit.

24 Q Okay.

25 And what do you think it means in

1 connection with how it's used in paragraph 33?

2 A I think here it's more common understanding
3 of, you know, people trying to make money buying and
4 selling stuff.

5 Q Okay.

6 Why would arbitrageurs be relevant to your
7 market efficiency analysis?

8 A Oh, well, to the extent that there might be
9 market inefficiencies, oftentimes, that's how
10 arbitrageurs attempt to make money.

11 Q How so?

12 A What do you mean -- well, I mean, what do
13 we say? Buy low, sell high? Is that right? Buy
14 low, sell high. Yeah. Sell high, buy low.

15 Q So if there are inefficiencies, the
16 arbitrageur is attempting to capitalize on those
17 inefficiencies; is that -- is that the concept?

18 A Well, I mean, you call it an inefficiency.
19 They're attempting to -- I guess -- yeah, to the --
20 I believe actually that sentiment is correct.

21 To the extent that there are
22 inefficiencies, an arbitrageur would try to
23 capitalize on them.

24 Q In connection with this analysis of FXCM
25 common stock, what investigation did you do to

1 determine whether or not there was the existence of
2 arbitrageurs, if any?

3 A Well, I don't know if you -- I wouldn't
4 necessarily consider institutional investors
5 arbitrageurs.

6 Some institutional investors probably are
7 trying to make arbitrageur profits, so I'm not sure
8 how to answer that question.

9 Q Sitting here today, do you believe that you
10 did an investigation into arbitrageurs in connection
11 with your analysis?

12 A I don't think I ever looked at a piece of
13 paper that described any specific individuals or
14 firms, entities, agents as arbitrageurs.

15 Q Is it fair to say, then, the arbitrageurs
16 did not factor into your analysis in connection with
17 this particular report?

18 A Is it fair to say? I don't know if it's
19 fair or unfair.

20 Q Would you agree with it?

21 A I don't know. I mean, again, to the extent
22 that I don't know enough about the institutional
23 investors to know whether or not they're
24 arbitrageurs.

25 Q Okay.

1 A So the fact that they were institutional
2 investors certainly informed my opinion.

3 Q And the fact you don't know enough about
4 them would be evidence that you did not
5 independently analyze them as arbitrageurs in
6 connection with your analysis?

7 A I did not independently do research on the
8 trading strategies of the institutional investor.
9 That is correct.

10 Q Okay.

11 Switching back to the selection -- not
12 switching back.

13 Let's switch gears to focus on your event
14 study in connection with Cammer Factor 5.

15 A So now let me just ask a clarifying
16 question. When we talk about events studies, for
17 the time being, we're focusing on the equity;
18 correct?

19 Q Yes, for right now.

20 A Okay.

21 So I should just assume that any question
22 you ask about an event study, at least during this
23 time period, you're referring to equity.

24 Q I'll do my best to make sure the questions
25 are clear, but to the extent there's a difference

1 that makes a difference and you believe it's
2 unclear, please let me know.

3 MR. HAKLAY: So you should not assume that
4 it's one and not the other unless he says so.

5 THE WITNESS: Yeah. I guess -- right.
6 That is exactly.

7 MR. ISAJIW: There's no question pending to
8 clarify. So if there is confusion, please let me
9 know. That's all I'm asking.

10 THE WITNESS: No. I'm just trying to save
11 time.

12 BY MR. ISAJIW:

13 Q So for your event study -- before you
14 conducted the event study in this case, what did you
15 know about FXCM as a company?

16 A Before I performed the event study?

17 Q Correct.

18 A I mean, I suppose I had probably read the
19 complaint and read some analyst articles before the
20 event study was performed.

21 Q Anything else?

22 A Not off the top of my head.

23 I mean, maybe I looked at the website. I
24 honestly don't recall.

25 Q Okay.

1 And when you're designing an event study,
2 how do you identify which dates to include in -- for
3 testing market efficiency?

4 A Well, it depends on the situation.

5 I mean, typically, I think I -- with
6 regards to event studies, I almost always -- and I'm
7 now looking at page 25. So this is paragraph 66 and
8 67. I always attempt to at least as part of my
9 event study, or an event study, (as read and/or
10 reflected:)

11 Focus on disclosures of
12 information related to the
13 allegations in the Complaint.
14 I'm reading from paragraph 67.

15 Q Okay.

16 And generally when you're designing an
17 event study, is there anything else that you almost
18 always look at, any other types of events?

19 A In a litigation setting?

20 Q In the setting of doing an expert report to
21 determine market efficiency.

22 A It really depends on the company.

23 In this -- as I said, I always attempt to
24 use this third criterion or this third event that
25 I've highlighted in my last answer. Beyond that,

1 it's really on a case-by-case basis.

2 Q And the -- what you highlight, is that
3 the -- I just want to make sure I understand
4 correctly -- the allegations in the complaint?

5 A Correct.

6 Q Okay.

7 You state in your report --

8 A I'm sorry to interrupt you.

9 Just for clarification, are we making a
10 distinction between the event study and the
11 news/no-news analysis?

12 Q For right now we're talking about the event
13 study. I'll have questions about the news/no-news
14 analysis later on.

15 A Right. You understand that that is
16 based -- the analysis is based partially on my event
17 study.

18 Q I don't understand what's in your report.
19 So I'm trying to understand.

20 A Well, you perform -- in order to do a
21 news/no-news analysis, you have to perform an event
22 study.

23 Q Okay.

24 A So if we're talking about the event study
25 section as opposed to my news/no-news analysis,

1 that's fine. I just wanted to make sure when you
2 were talking about event study, you were
3 specifically talking about this section and not an
4 event study in general.

5 Q I thought that that was clear --

6 A Well --

7 Q -- but if it wasn't, I appreciate the
8 qualification.

9 I'm looking for when you were designing
10 your event study, the process by which you chose the
11 events to include in the event study.

12 And I believe that you said one of the
13 things that you always do is look at the events as
14 described in the complaint.

15 A Well, I believe I said attempt to always
16 do, but, yes, that's accurate.

17 Q Okay.

18 You state in your report at paragraph 68
19 that (as read and/or reflected:)

20 An event study testing market
21 efficiency does not require a
22 comprehensive identification of all
23 events during the Class Period,
24 including all of those cited in the
25 Complaint. An objective screen for

1 a market efficiency event study may
2 capture only some of those events.

3 Did I read that correctly?

4 A That is correct.

5 Q What is your objective screen process?

6 A Again, it depends on the case.

7 Q What was it here?

8 A In terms of -- well, there was one
9 corrective disclosure, and I don't believe during
10 the Class Period there were any other -- what was
11 the term I used here? Allegation-related events
12 during the Class Period.

13 Q So your objective screen process included
14 looking at the corrective disclosures in the
15 complaint?

16 A Well, I mean, no, if there was, like, in a
17 case, let's say, where there is some kind of
18 inflationary statement or the allegation is that,
19 let's say, your client in the middle of the Class
20 Period said we're earning a billion dollars in
21 drafts when, in fact, they weren't, that would
22 typically -- and I would typically, or I might look
23 at that.

24 So that wouldn't be a corrective
25 disclosure. All right.

1 Q So focusing on this event study for this
2 particular case, you looked at the corrective
3 disclosure and you discussed an objective screen.

4 I'm just asking what else was involved in
5 your objective screen for this case.

6 A Well, that, to my knowledge, that is the
7 only -- I did not find any inflationary statements
8 made during the class, or I have not seen any
9 allegations, as I sit here today, about inflationary
10 statements or other corrective disclosures.

11 So the screen I used was, as I stated here,
12 focusing on disclosures of information related to
13 the allegations in the complaint.

14 Q And how many events did you settle on after
15 your objective screen for this event study?

16 A For this particular event?

17 Q Correct. For this particular event study.

18 A Oh, for the particular event study. In
19 full, three.

20 Q Okay.

21 And those three were January 14th, 2012;
22 correct?

23 A Well, that was one.

24 Q Okay.

25 A Wait. Let me go there before we start

1 misquoting me.

2 Q I don't believe I was misquoting you.

3 A No, it's just possible.

4 All right. So where are we? Selection and
5 selective of acquisition.

6 Q Let me withdraw that question.

7 Do you agree that you chose three event
8 dates in connection with this event study?

9 A That is correct.

10 Q And only three event dates in connection
11 with this event study?

12 A I'm sorry.

13 THE WITNESS: Can you reread the question.
14 (The record was read back as
15 follows:

16 "Question: Do you agree that
17 you chose three event dates in
18 connection with this event study?")

19 THE WITNESS: I chose to look at three
20 events. I believe there was another acquisition
21 that was small during the Class Period. So if I was
22 looking at all acquisitions, I suppose I looked at
23 that event.

24 But there was -- I don't remember the exact
25 size, but it was extremely small and it wouldn't be

1 something that I would expect to result in a
2 material change in information about the company
3 that would result in a -- be significant enough to
4 result in an abnormal stock return.

5 BY MR. ISAJIW:

6 Q So you did not include whatever that
7 acquisition was in your event study?

8 A I -- that is correct.

9 Q And your event study covers a Class Period
10 that is nearly five years long; is that correct?

11 A That is correct.

12 Q Are you comfortable drawing any reasonable
13 conclusions based on analyzing three days over a
14 five-year period?

15 A Well, with -- in combination with my
16 news/no-news study, yes.

17 Q What if you excluded the news/no-news study
18 and just looked at an event study three days for a
19 five-year Class Period?

20 MR. HAKLAY: Objection. Calls for
21 hypothetical.

22 THE WITNESS: Right.

23 So in your hypothetical, I didn't do the
24 additional analysis. I only looked at three days
25 during the Class Period. It would really depend

1 on -- I would need to look at that on a case-by-case
2 basis.

3 BY MR. ISAJIW:

4 Q As an economist conducting a market
5 efficiency analysis, would you have concerns
6 conducting an event study for a five-year period
7 based on three events?

8 MR. HAKLAY: Objection. Vague.

9 THE WITNESS: Along with my news/no-news
10 analysis, in combination with those two things, no.
11 I clearly didn't have a concern, as I only looked at
12 three --

13 BY MR. ISAJIW:

14 Q What about with -- I'm sorry.

15 MR. HAKLAY: Finish the sentence.

16 THE WITNESS: I only looked at three days.

17 BY MR. ISAJIW:

18 Q What about excluding a news/no-news
19 analysis, would you have a concern?

20 A So that's an incomplete hypothetical and I
21 would need -- it would really -- I would need to
22 determine that on a case-by-case basis.

23 Q So as an economist, sitting here today, you
24 can't tell me whether or not you would have concerns
25 basing a five-year Class Period conclusion on three

1 events without a news/no-news event study?

2 MR. HAKLAY: Objection. Vague.

3 I apologize. I thought you were done.

4 THE WITNESS: I refer to my previous
5 answer.

6 BY MR. ISAJIW:

7 Q Okay.

8 In your prior work, have you ever looked at
9 a five-year class study with fewer than -- I'm
10 sorry.

11 Have you ever conducted an event study for
12 a Class Period of five years with fewer than three
13 events?

14 A In a market efficiency analysis?

15 Q Yes.

16 A As I sit here, I don't recall.

17 Q Sitting here today as an economist, do you
18 have a view on -- for a Class Period of five years
19 how many events would be too few events?

20 A It's not anything I've thought about.

21 I mean, again, that is the purpose of
22 including a news/no-news analysis is it looks at
23 news over the entire Class Period.

24 Q Okay.

25 So for the event study if you had two

1 events over a five-year Class Period, that would not
2 cause you concern?

3 A Again, it would have depended upon the
4 situation.

5 I mean, certainly, I looked at two days
6 during the bond event study period.

7 So ...

8 Q Okay.

9 So the first day in your event study is
10 June 14th, 2012. And that is the day that FXCM
11 announced the acquisition of Leucadia Markets; is
12 that correct?

13 I'm sorry. Lucid Markets; is that correct?

14 A That is correct.

15 Q Okay.

16 Why did you decide to include this
17 acquisition event?

18 A Well, in conducting my event study, and I'm
19 reading from paragraph 56 now (as read and/or
20 reflected:)

21 I reviewed the history of the
22 company over the course of the
23 Class Period as presented in news
24 articles, analyst reports, and
25 Company announcements and filings.

1 The events during and immediately
2 following the Class Period that I
3 determined are appropriate for the
4 inclusion in the market efficiency
5 event study are June 14th, 2012;
6 January 20th, 2015; and
7 February 7th, 2017. The events
8 were selected on the following
9 basis.

10 And so if you wanted me to read
11 paragraphs 57 and 58 as to how I chose that, I would
12 be happy to do that as well.

13 Q We have your report. So I don't want you
14 to read it again. I'm just asking for additional
15 color, if you have it, on your selection process for
16 these event studies.

17 A I think my report fully lays that out for
18 you. So ...

19 Q When you conduct event studies, do you
20 always look for acquisition dates?

21 A Not necessarily.

22 Q Why did you look for acquisition dates for
23 this event study?

24 A Well, so I'm reading from paragraph 57 (as
25 read and/or reflected:)

1 In 2012, 2013 and 2014, FXCM's
2 business strategy included making
3 acquisitions to expand its customer
4 base -- if I'm going too fast let
5 me know -- in those markets where
6 it has low penetration. The
7 Company acquired other companies
8 "to expand [its] presence and
9 capabilities in the institutional
10 marketplace."

11 Given FXCM's business
12 strategy, announcements of large
13 acquisitions could be expected to
14 impact the value of the Company.
15 It follows that on certain dates
16 when the Company announced a large
17 acquisition, the value of FXCM
18 common stock would be expected to
19 move.

20 Q Thank you.

21 How many acquisitions did FXCM make during
22 the Class Period?

23 A Well, let's see -- as I sit here, I believe
24 it was two.

25 Q Okay.

1 How many did you include in your event
2 study?

3 A One.

4 Q On what basis did you exclude the second
5 acquisition that you're aware of?

6 A It was small. And as an economist, I
7 wouldn't have expected it to have a statistically
8 significantly impact on the stock price.

9 Q What is the threshold by which you
10 determined it was small?

11 A As I sit here, I don't recall.

12 Q Did you test whether or not it has a
13 statistically significant result on the stock price?

14 A Well, to the extent that my Event Study
15 Results are presented in -- let's see where it is
16 here.

17 Q Just before you go in there, does the
18 second acquisition that you did not include in your
19 event study include the -- would that be included in
20 your results?

21 A Well, the abnormal return on that date
22 would be included in my results. So yes.

23 Q Okay.

24 Sitting here today --

25 A I'm just -- hold on. Let me just refresh

1 my recollection.

2 Q I don't believe there's a question pending.

3 A Oh, okay. Go ahead.

4 Q Sitting here today, and I -- is there --
5 can you give me any explanation for why you excluded
6 this second acquisition?

7 MR. HAKLAY: Objection. Asked and
8 answered.

9 You may answer again.

10 THE WITNESS: Yeah, it was too small.

11 BY MR. ISAJIW:

12 Q Okay.

13 And do you have any recollection on how
14 small it was?

15 A I do not.

16 Q Do you remember if it was half the size of
17 the event -- the acquisition that you included?

18 A At this point, I would be speculating. I
19 believe it was smaller than that. But I do not
20 recall.

21 Q And is that information included anywhere
22 in your report?

23 A It -- I don't believe so.

24 Q Okay.

25 The second event that you chose was the

1 January 20, 2015; is that correct?

2 A That is correct.

3 Q And why did you choose that day?

4 I'm sorry. I'll withdraw that question.

5 Do you recall that that was the day that
6 the Swiss National Bank had a flash crash?

7 A I believe that's correct.

8 Q And that was the day that FXCM announced a
9 \$225 million loss and a possible regulatory capital
10 breach?

11 A Let me just look at the data to fully
12 refresh my memory.

13 Yeah, I believe that's correct.

14 Q What is your understanding of FXCM's
15 regulatory capital requirements?

16 A As I sit here today, I don't remember.

17 Q You don't remember, does that imply that
18 you at one point knew but don't remember now?

19 A I believe that's correct.

20 Q Generally speaking, what is your
21 understanding of a regulatory requirement?

22 A Well, it's usually a requirement stated by
23 a government agency or some kind of -- I don't know,
24 I mean, I suppose if you -- I don't know if you
25 consider things like this CFTC a government

1 agency -- requirement with regards to how much
2 capital they have.

3 Q Okay.

4 In this case, do you know which regulator
5 was relevant to the regulatory capital requirement
6 for FXCM?

7 A I can refresh my memory by looking at the
8 press release by the company on January 15th, 2015.

9 But as I sit here right now -- well, hold
10 on. I may be able to give you an answer to that
11 question.

12 MR. HAKLAY: Can you hang on a second while
13 you do that?

14 BY MR. ISAJIW:

15 Q Let me ask a different question.

16 Are regulatory capital breaches normally
17 something that you would look for when conducting an
18 event study?

19 A It depends on the situation.

20 Q What situations would you look for
21 regulatory capital events when conducting an event
22 study?

23 A Well, I mean, so by way of example, one
24 that would require a 300-million-dollar infusion of
25 cash would certainly be one.

1 Q Have you ever used a regulatory capital
2 breach in any other market efficiency event study?

3 A I believe so.

4 Q Which ones?

5 A I don't recall. Certainly -- I've
6 certainly worked on FDA cases where that's been the
7 case.

8 Yeah, at least some. Yes.

9 Q Were you aware of the January 2015
10 regulatory capital breach before you conducted your
11 event study?

12 A Well, I believe I had read about it prior
13 to conducting my event study.

14 Q Was that in the complaint? Meaning, did
15 you read about it in the complaint?

16 I don't think it's -- I don't want to
17 require you to read the entire complaint.

18 Would it be fair to say that you likely
19 found out about the regulatory capital event from
20 the complaint?

21 A I don't know.

22 Q Can you think of any other source where you
23 would have found out about it?

24 A Yeah. Sure. In my review of news and
25 analyst reports.

1 Q And is regulatory capital violations
2 something that you typically review for when
3 designing an event study in connection with a market
4 efficiency analysis?

5 A As I stated -- yeah. So I'm going back to
6 paragraph 56. (As read and/or reflected:)

7 To identify appropriate event
8 dates for the market efficiencies
9 event study I reviewed the history
10 of the Company over the course of
11 the Class Period, as presented in
12 news articles, analyst reports, and
13 Company announcements and filings.

14 Q When you start any event study, not
15 necessarily this one, is regulatory capital events
16 one of the things that you look out for when you're
17 looking at a company's reports?

18 A I typically do the exact same process that
19 I just described.

20 Oftentimes, there are not regulatory
21 capital breaches in some of my cases. So to the
22 extent that those are not in any news related to an
23 additional company, I don't review them.

24 Q The third event that you chose was
25 February 6th -- the third date was February 6th,

1 2017, and that's the alleged corrective disclosure
2 event.

3 Is that correct?

4 A Correct.

5 Q Okay.

6 And I think you testified -- well, sorry.
7 I don't want to -- do you always use alleged
8 corrective disclosure events in your market
9 efficiency studies?

10 A To the extent that I believe they were
11 material, I attempt to.

12 Q And how do you determine that they were
13 material before conducting the study?

14 A Well, I mean, there are certain, you know,
15 there may be things mentioned in a complaint that
16 have nothing to do with the alleged allegations.
17 And so I would typically ignore those.

18 Q So your process to determine which events
19 to include in the event study come from a review of
20 the complaint and a judgment as to which ones you
21 believe are material to the allegations in the
22 complaint?

23 A In addition to the process I described
24 previously.

25 Q Which was what?

1 A Again, reading from paragraph 56 (as read
2 and/or reflected:)

3 To identify --

4 Q If that's what you're referring to, you
5 don't need to reread it. I wanted to make sure that
6 when you said what I had described previously that
7 we were on the same page.

8 A Did you -- oh, okay.

9 Q In paragraph 8 of your report, you state
10 that (as read and/or reflected:)

11 FXCM common stock traded in an
12 efficient market during the Class
13 Period.

14 Does that mean that you conducted -- that
15 you concluded that the stock traded in an efficient
16 market on each day during the Class Period?

17 A My conclusion is that it traded in an
18 efficient market throughout the Class Period.

19 Q Okay.

20 A That is my conclusion.

21 Q And so --

22 A That is what I was asked to perform.
23 That's what I concluded.

24 Q And does that conclusion mean that you
25 concluded that it traded in an efficient market on

1 each day of the five-year Class Period?

2 MR. HAKLAY: Objection. Asked and
3 answered.

4 THE WITNESS: I've explained to you what I
5 have been asked to do. That's what I did.

6 BY MR. ISAJIW:

7 Q Sitting here today, based on the analysis
8 that you did, did you conclude that FXCM common
9 stock, in fact, traded in an efficient market in
10 each day of the five-year Class Period?

11 A Again, I was asked to determine whether or
12 not the stock traded in an efficient market during
13 the Class Period. That is what I did -- did an
14 analysis on, and that's what I concluded.

15 Q Would you agree that over a five-year Class
16 Period a market for a particular security could be
17 efficient at some periods and inefficient during
18 other periods?

19 A So you're asking me a hypothetical based --
20 the question is could it occur?

21 Q That's my question.

22 A Anything -- almost anything can occur. So
23 based on that definition, it is possible.

24 Q Okay.

25 Did you do an analysis in this case to

1 determine whether it did occur?

2 A Again, I was asked to determine whether or
3 not the stock was efficient during the Class Period.
4 That is what I looked at.

5 Q So when you come to the conclusion that it
6 was efficient -- it traded in an efficient market
7 during the Class Period, are you inferring that
8 trading over the whole Class Period for FXCM common
9 stock was efficient based on your sample of -- based
10 on your sample event of three days?

11 A Again, I performed a news/no-news analysis.
12 I did my event study. I looked at the other eight
13 Cammer factors or other seven Cammer factors and
14 determined that the stock traded in an efficient
15 market during the Class Period.

16 Q You also state that (as read and/or
17 reflected:)

18 FXCM Notes traded in an
19 efficient market during the portion
20 of the Class Period when they
21 traded, which is June 24th, 2014,
22 through February 7, 2017.

23 Is that correct?

24 A That is correct.

25 Q In your opinion, does that mean that the

1 bond also traded in an efficient market on each day
2 between June 24th, 2014, and February 7th, 2017?

3 A Again, my finding was that the stock -- I'm
4 sorry -- the bonds traded in an efficient market
5 through June 24th, 2014, through February 7th, 2017.

6 That's what I was asked to opine upon.
7 That's the analysis I performed. That's the
8 conclusion I reached.

9 Q And did you do any -- other than what's in
10 your report, did you do any direct testing of the
11 efficiency of markets on a daily basis throughout
12 the Class Period for either the notes or the stock?

13 A I'm confused.

14 What do you mean by tested for efficiency
15 on a daily basis? Like explain -- describe one of
16 these tests to me.

17 Q I'm asking what test you did.

18 A Well, I told you what I did. And I told
19 you that I determined the stock traded in an
20 efficient market over the Class Period, and it's
21 traded during an efficient market during those --
22 its period.

23 Q And my question was: Other than the test
24 described in your report, did you perform any
25 others?

1 A Oh, other than the tests performed in my
2 report? I don't believe so.

3 Q Okay.

4 When you were designing your event study,
5 did you look at earnings days as potential events?

6 A Well, to the extent that 8-Ks possibly
7 looked -- talk about earnings, I certainly did my
8 news/no-news analysis.

9 Q So focusing on the event study portion of
10 your analysis, did you include any earnings days?

11 A Unless -- I don't know. I mean, let me
12 look at their 10-Qs. I don't know if there was an
13 overlap between the event days I used and the
14 issuance of 10-Qs.

15 I assume when you say "earnings days," are
16 we just talking about 10-Qs and 10-Ks? Is that your
17 definition of an earnings day?

18 Q Would any other events be included in your
19 definition of earnings days?

20 A Not typically. But, again, it's -- it
21 would depend on the situation. I suppose you could
22 have, I don't know, when you consider -- well, I
23 don't want to speculate.

24 So let's look at their ...

25 Do you have a pen I can borrow? Do you

1 have a piece of paper?

2 MR. HAKLAY: I do.

3 THE WITNESS: Thank you.

4 I'm more than happy to turn this over to
5 you, which I'm obligated to do.

6 Hold on one second.

7 BY MR. ISAJIW:

8 Q Let me ask a different question.

9 A Okay.

10 Q The three days that we just discussed which
11 were included in your event study, were any of them
12 included because they were an earnings day?

13 A I stated the reason why I chose them.

14 (Reporter clarification.)

15 THE WITNESS: I guess the logical
16 conclusion is no.

17 MR. ISAJIW: Okay.

18 MR. HAKLAY: He said, "why I chose them."

19 BY MR. ISAJIW:

20 Q Were there earnings days, during the
21 five-year class periods, available to include in
22 your event study?

23 A There were certainly earnings days. I
24 don't recall whether or not those earnings days were
25 earnings surprises.

1 I mean, look, that's what -- that's one of
2 the difficulties in performing an earnings day event
3 study.

4 Most of the time when earnings are -- meet
5 expectations, you don't typically see a
6 statistically significant stock price movement.

7 So looking at those days doesn't really
8 provide you with any information.

9 Now, in a lot of these classes; right, the
10 end of the Class Period or one of the corrective
11 disclosures might be in an earnings announcement,
12 and so then you'd certainly look at an earnings day.

13 But so over, like, if I were to look at a
14 five-year Class Period, my expectation on how many
15 of those earnings days would contain new material
16 information that would cause -- that were severe
17 enough to cause a statistically significant stock
18 change, or stock decline, stock increase, would be
19 relatively low.

20 Q What -- did you do an analysis to determine
21 that in this case when you conducted -- when you
22 designed your event study?

23 THE WITNESS: Can you reread the question,
24 please.

25 (The record was read back as

1 follows:

2 "Question: Did you do an
3 analysis to determine that in this
4 case when you conducted -- when you
5 designed your event study?")

6 THE WITNESS: I don't understand the
7 question.

8 BY MR. ISAJIW:

9 Q Did you do an analysis in connection with
10 your event study in this case to determine whether
11 or not earnings days were appropriate to include?

12 A To the extent that I, again -- well, rather
13 than go there. I refer you to paragraph 56. And so
14 to the extent that there were earnings days during
15 the Class Period, yes, certainly would be something
16 I considered.

17 Q Let me point you to paragraph 76 of your
18 report, page 29.

19 When you were conducting your event study
20 for the stock here, you chose to break the Class
21 Period up into yearly sub periods; is that correct?

22 A That is correct.

23 Q Okay.

24 Can you give me an explanation as to why
25 you chose to do that?

1 A Based on my experience.

2 Q What in your experience suggested that
3 breaking it up into sub periods was appropriate?

4 A Something I've oftentimes seen based on the
5 fact that there was a structural break in the
6 company's stock. All those things informed my
7 opinion.

8 Q All which things?

9 A All the things I just mentioned.

10 Q It's something you've often seen and based
11 on the fact that there was a structural break in the
12 company's stock.

13 Any other things?

14 A Oh, it's something that has commonly been
15 accepted by courts, also would be another.

16 Q What difference in the analysis would there
17 be if you did not break it up into sub periods?

18 MR. HAKLAY: Objection.

19 In this case or is it a hypothetical?

20 MR. ISAJIW: In this case.

21 MR. HAKLAY: Okay. Thank you.

22 THE WITNESS: Well, given that there was a
23 structural break, my guess is you would have some
24 weird regression results.

25 ///

1 BY MR. ISAJIW:

2 Q And what do you mean by "structural break"?

3 A Well, the stock -- as of the flash crash,
4 the stock traded differently before and after that
5 date.

6 Q Okay.

7 In paragraph 76 you say (as read and/or
8 reflected:)

9 Prior to running a regression,
10 one often decides on an event
11 window over which to measure the
12 relationship between the security
13 at issue and the corresponding
14 market and/or industry factors.

15 Given that the Class Period in
16 the current case for FXCM is
17 approximately five years in length,
18 and so that the regression
19 estimates would be relatively
20 contemporaneous for the events I
21 [verbatim] tested, I ran
22 regressions on a daily returns
23 covering the entire Class Period
24 broken down into 252 day periods.
25 Did I read that correctly?

1 A Where are you reading from?

2 Q Paragraph 76.

3 A Well, do you want to reread it?

4 Q I don't.

5 A Will you stipulate that what you read was
6 from my report?

7 MR. HAKLAY: It was.

8 MR. ISAJIW: I generally don't stipulate
9 with witnesses.

10 MR. HAKLAY: That's fine. There was one
11 word, whatever, it was not important.

12 THE WITNESS: He just -- I didn't know that
13 he was reading from my report.

14 BY MR. ISAJIW:

15 Q I'm not trying to be argumentative. I'm
16 literally just trying to understand the process
17 here.

18 A Okay. But then just point me to the
19 paragraph. And I'm happy -- if you're reading from
20 the report, just tell me, hey, we're on
21 paragraph 56, or whatever it is.

22 Q I believe I've pointed you to --

23 A Paragraph 76.

24 Q -- 76 a number of times. But, again, I'm
25 asking you, feel free if you have questions or if

1 I'm not clear, let me know.

2 What I want to focus you on in this report
3 is in connection with your breaking this down into
4 multiple sub periods, you say, in paragraph 76, that
5 (as read and/or reflected:)

6 The regression estimates would
7 be relatively contemporaneous for
8 the events being tested.

9 Do you see that?

10 A Yes, I do.

11 Q Okay.

12 What do you mean by "relatively
13 contemporaneous"?

14 A Well, that's when the events are taking
15 place. So in just, I guess, a common understanding
16 of what contemporaneous means.

17 Q That's when which events are taking place?

18 A Well, events throughout the -- I mean,
19 announcements are being made throughout the entire
20 Class Period; right. There is news being released
21 during the entire Class Period.

22 So when I say "contemporaneous," I mean
23 contemporaneous when the news is being released.

24 Q Are you talking about the news related to
25 the three dates you chose as the basis of your event

1 study?

2 A I'm talking about all company news.

3 So, again, referring to paragraph 56.

4 Q So you chose five regression estimation
5 periods here, March 15th, 2012, to February 1, 2013;
6 February 4, 2013, to February 3, 2014, et cetera.
7 This is the last couple of sentences of
8 paragraph 76; is that right?

9 A That is correct.

10 Q How did you decide how many sub periods to
11 use in connection with this analysis?

12 A Well, when I decided to use annual trading
13 days -- or annual -- what do I say here? When I
14 decide to use a full year of data, that's how the
15 sub periods broke up.

16 Q Is it fair to say that you broke it out --
17 you broke the analysis out into sub periods because
18 stocks may behave differently during the sub periods
19 in connection with your analysis?

20 A Is it safe to say?

21 I'm not sure I would use that terminology.

22 Q I believe I said "fair."

23 A Oh, I'm sorry.

24 THE WITNESS: Could you reread the
25 question. Maybe I misunderstood it.

1 (The record was read back as
2 follows:

3 "Question: Is it fair to say
4 that you broke the analysis out
5 into sub periods because stocks may
6 behave differently during the sub
7 periods in connection with your
8 analysis?")

9 THE WITNESS: I don't know if I would
10 say -- I'm not sure I would use the word "fair." I
11 mean, it's something I've done before. It's
12 something I did in this case.

13 BY MR. ISAJIW:

14 Q Is it true to say that you broke -- that
15 you broke out the analysis into sub periods because
16 stocks may behave differently during the sub periods
17 in connection with your analysis?

18 A I'm sorry.

19 THE WITNESS: Can you reread the question,
20 please.

21 (The record was read back as
22 follows:

23 "Question: Is it true to say
24 that you broke out the analysis
25 into sub periods because stocks may

1 behave differently during the sub
2 periods in connection with your
3 analysis?")

4 THE WITNESS: I don't know if it's true or
5 not. I'm not quite sure.

6 I don't understand the question.

7 BY MR. ISAJIW:

8 Q So other than what's in your report, do you
9 have -- can you give me any other explanation as to
10 why you broke this out into five sub periods?

11 A You mean other -- other than what's in my
12 report and what I've stated previously in my
13 deposition?

14 Q Correct.

15 A I don't believe so. I mean -- well, I
16 mean -- yeah. We'll leave it at that. That's fine.

17 Q I'm just trying to get your best answer as
18 to why you conducted the analysis in this way. And
19 if you believe you've already given me your best
20 answer, that's great.

21 And if not, that's what I'm trying to
22 understand.

23 A Okay.

24 Let -- let -- well, I don't want to --

25 MR. HAKLAY: There's no question for you.

1 THE WITNESS: Right. That's correct. Yes.

2 MR. HAKLAY: Don't worry. He'll ask

3 another one.

4 BY MR. ISAJIW:

5 Q So let's turn to Exhibit 8a of your report
6 on page 165.

7 Backing up for a second.

8 When you were doing your study in
9 connection with this report, did you find that FXCM
10 financial and market positions changed throughout
11 the Class Period?

12 A What do you mean by their "market
13 positions"?

14 Q Let's say financial position.

15 A That's still vague. I don't understand the
16 question.

17 Q As an economist, you don't understand what
18 a financial position of a company would be in
19 connection with an analysis throughout a Class
20 Period in a securities litigation case?

21 MR. HAKLAY: That's actually not a
22 question.

23 Please ask one.

24 MR. ISAJIW: I believe it was a question.

25 Q What do you understand about -- just based

1 on your common understanding as an economist -- a
2 company's financial position throughout a Class
3 Period?

4 A Well, okay.

5 So let me ask a clarifying question.

6 So, I mean, if we're talking about, let's
7 say, Apple, all right. And we talked about their
8 financial position, I would look at, you know, their
9 market -- not their market structure, sorry, their
10 capital structure.

11 If you're talking about a trading firm and
12 you're talking about -- we certainly -- we could
13 look at a --

14 Q I'm talking about FXCM.

15 A Can I -- I'm trying to answer the question
16 to the best of my ability.

17 You have asked a vague question.

18 MR. HAKLAY: Please continue.

19 THE WITNESS: So when you say "financial
20 position," do you mean as in the holdings of the
21 company, which oftentimes when you're talking about
22 an investment firm is referred to as a financial
23 position?

24 Or are you referring to the firm's
25 financials, as in the SEC filings?

1 BY MR. ISAJIW:

2 Q I think I'm referring to both collectively.
3 But what I'm asking you is, do you have a general
4 understanding of the term "a firm's financial
5 position"?

6 MR. HAKLAY: Objection. Asked and
7 answered.

8 MR. ISAJIW: Well, it was asked.

9 MR. HAKLAY: It was answered.

10 THE WITNESS: Like I --

11 MR. HAKLAY: He told you there's more than
12 one -- one possibility. That's an answer.

13 Go ahead, sir.

14 THE WITNESS: Like I said, it varies from
15 firm to firm.

16 BY MR. ISAJIW:

17 Q Okay.

18 Looking at Exhibit 8a, this is (as read
19 and/or reflected:)

20 FXCM Common Stock Regression

21 Results, Estimation Period:

22 March 15, 2012, through February 1,
23 2013.

24 Can you just explain to me what this
25 exhibit demonstrates at a very high level.

1 A Yeah. It's a market model with the results
2 of my regression.

3 Q Okay.

4 So what does R squared, for instance, mean?

5 A I'm not sure -- can I give you a formal
6 definition?

7 Q Informal is fine. You asked me a question.

8 A No. No. Sorry. I was talking out to -- I
9 was speaking out to myself. I apologize. It seemed
10 as if it was a question to you.

11 It just -- in some sense, it just explains
12 how -- how much of the model is described -- how
13 much of the data is described by the model.

14 Q Okay.

15 And what about adjusted R squared?

16 A That's typically -- it would be the same
17 answer, but it's adjusted for the number of
18 variables included in the model.

19 Q Standard error.

20 A Would just be, I don't know, if you want to
21 think of it as a variance of the model.

22 Q Okay.

23 Jumping down below, we have coefficients.
24 Intercept coefficient.

25 What does that indicate?

1 A It's the coefficient on the intercept.

2 Q Market index.

3 A The term "market index" or "coefficient on
4 the market index"?

5 Q Coefficient on the index demonstrates what?

6 A It's the coefficient on the market index.
7 Let me -- I'll give you a more formal definition.

8 It is a measure of the relationship between
9 how the market moves on a daily basis and how the
10 common stock moves on a daily basis, if we're just
11 talking about this particular regression analysis.

12 Q I am.

13 And what about peer index?

14 A Similar to the answer I just gave you, but
15 it's with regards to peers as opposed to the market.

16 Q Those two index, which measure against the
17 market and the peer, they can change over time; is
18 that correct?

19 A That is -- when you say "they can change
20 over time," you mean their components can change
21 over time?

22 Q I mean the coefficients, the calculation.

23 A So that's -- okay. So now you're asking
24 can the coefficients change over time?

25 Certainly.

1 Q Okay.

2 And in connection with your analysis, they
3 did change substantially between the different
4 periods that you looked at; is that correct?

5 A They changed over the different periods I
6 looked at.

7 Q So, for instance, the one that we're
8 looking at now on page 165, we have a market index
9 of 0.691.

10 A Yep.

11 Q And a peer index of 0.357?

12 A Uh-huh.

13 Q And a standard error of 2.05?

14 A Correct.

15 Q Okay.

16 And if you turn to 8d, which is 168.

17 A All right.

18 What are we looking at again? I'm sorry.
19 Can you read back the question. I need to write
20 these down.

21 Q I'll try to do this as easy as possible.

22 A I want to look at them side by side.

23 Q That's fine. Look at page 165.

24 A Yeah.

25 Q Okay.

1 Grab page 166 in your right hand, flip it
2 over and you will see 8d, 168; right?

3 A Yeah. I want to be able to look at the
4 numbers together --

5 Q I got you.

6 A -- to compare them.

7 Do you want to give me one of those? I'm
8 happy to look. Just give me two.

9 MR. HAKLAY: Why don't you look at 165 here
10 and he can show you 168, and then you'll have them
11 next to each other.

12 THE WITNESS: There you go.

13 BY MR. ISAJIW:

14 Q So for 8a, the market index is 0.691;
15 correct?

16 A That's what it says, yes, correct.

17 Q And then 8d, the market index is 0.023?

18 A Correct.

19 Q Okay.

20 Would you characterize that as a change
21 over time?

22 A It's certainly different.

23 Q Okay.

24 And is it a substantial change over time?

25 A My guess is if I ran some statistical

1 analyses, there would be a statistically significant
2 difference between those two coefficients.

3 Q And then the peer index on 0.357 on 8a.
4 And if you look at 8d, which is for the period of
5 February 6, 2015, through February 5, 2016, we have
6 0.579.

7 A Correct.

8 Q Okay. Again, would you characterize that
9 as a substantial change over time?

10 A It's certainly different. I don't -- I --
11 I'm not sure if it would be statistically
12 significantly different.

13 Q And then the standard error in 8a is 2.05.
14 And the standard error in 8d for this other period
15 is 6.59.

16 Do you see that?

17 A I do.

18 Q Okay.

19 Again, would you agree they are
20 substantially different?

21 A Again, I will -- I agree that they are
22 different.

23 Q How would you -- you have no
24 characterization for the extent to which they are
25 different?

1 A They're different. I mean, if I were to --
2 if someone were to ask me to perform statistical
3 tests, I could determine whether or not they were
4 statistically significantly different.

5 And I guess when -- if there's some formal
6 definition of substantial, I mean, we talk about
7 significant in economics and then we talk about
8 statistically significant. So that has a standard
9 meaning.

10 Substantial, if you're measuring it by
11 differences in coefficients, I don't -- I'm not
12 quite sure how to -- how to answer in economic
13 terms.

14 Q Would you say it's a de minimis difference
15 between the two?

16 A I haven't even thought about that.

17 Q An insignificant difference between the
18 two?

19 A Is it insignificant?

20 Again, so now you're using formal
21 definitions. I would need to form -- I would need
22 to perform a statistical test to determine whether
23 or not it's insignificant or significant.

24 Q What do those differences represent in
25 terms -- just looking at the market index, what does

1 the difference represent? The market index you
2 described is a relationship between -- I'm sorry.
3 Can -- you can look back.

4 How did you describe the market index and
5 what that means?

6 A You mean the coefficient on the market
7 index?

8 Q Yes.

9 A It's how the underlying stock responds, on
10 average, to changes in the market index.

11 Q Okay.

12 And so the 0.691, as compared to 0.023, how
13 would you -- what would drive that difference?

14 A What would drive the difference?

15 Q What would the difference in the
16 coefficients indicate in terms of the measurement
17 that you're trying to achieve here?

18 A That during that one-year period in
19 Exhibit A, a 1 percent increase in the market would
20 result in a 0.691 percent increase in the underlying
21 stock. A 1 percent -- in the second example, a
22 1 percent increase in the market would result in
23 a 0.023 percent change in the stock.

24 Q Okay.

25 And the same question for the peer index.

1 A I'm sorry.

2 THE WITNESS: Can you repeat the question,
3 please.

4 (The record was read back as
5 follows:

6 "Question: What would the
7 difference in the coefficients
8 indicate in terms of the
9 measurement that you're trying to
10 achieve here?")

11 BY MR. ISAJIW:

12 Q I'm trying to get the same explanation for
13 the peer index.

14 A So here it looks like a 1 percent -- and
15 this is Exhibit 8a -- a 1 percent change in the peer
16 index would result in a 0.357 percent increase in
17 the underlying stock.

18 And the -- and in the other, this is
19 Exhibit 8d, a 1 percent increase in the peer index
20 would result in a 0.579 percent increase in the
21 underlying stock.

22 Now, I'm just talking about positives.
23 Obviously, it could also be negative.

24 MR. HAKLAY: Finish your subject. We're
25 getting close to an hour. I'm not suggesting we

1 break right now, but close.

2 MR. ISAJIW: You know what, this is as good
3 a time as any to take a break.

4 MR. HAKLAY: Okay.

5 THE VIDEOGRAPHER: We are going off the
6 record.

7 The time is 1:34 p.m.

8 (Recess was taken at 1:34 p.m.
9 until 1:47 p.m.)

10 THE VIDEOGRAPHER: We are back on the
11 record.

12 The time is 1:47 p.m.

13 BY MR. ISAJIW:

14 Q Just before we broke, we were discussing
15 your regression analysis for the common stock and
16 the five regression estimate periods you used in
17 connection with that analysis.

18 Correct?

19 A Correct.

20 Q Okay.

21 Did you use any regression estimation
22 periods in connection with your analysis of the bond
23 in this case?

24 A Did I use any -- I'm sorry. Can you repeat
25 the question?

1 Q Let me ask it, hopefully, better.

2 You broke your analysis for the common
3 stock into five sub periods; correct? Paragraph 76
4 of your report.

5 A That is correct.

6 Q Did you break your analysis of the bond
7 into any sub periods in connection with your
8 analysis?

9 A No. The estimation period I used on the
10 bonds or the notes was June 24th, 2014, through
11 August 16, 2016.

12 Q Why didn't you subdivide that into sub
13 periods?

14 A It was after the -- well, hold on. Before
15 I answer that.

16 That's a good question. I certainly could
17 have. I don't think it would change my results at
18 all.

19 Q Was it a conscious decision not to?

20 A No.

21 Q Okay.

22 Focus on paragraph 77 of your report,
23 page 29.

24 Do you have paragraph 77?

25 A Yeah.

1 Q Great.

2 In this paragraph you described using (as
3 read and/or reflected:)

4 (Dummy) variables to control
5 for potential abnormal returns on
6 news events for which the company
7 filed a form 8-K with the SEC.

8 Can you explain to me at a high level
9 what -- why you used dummy variables and what you
10 were trying to achieve there.

11 A Well, so if you -- really at least with
12 regards to these specific dummy variables, this goes
13 to my news/no-news test.

14 So -- so to the extent that I define -- and
15 I'm looking at starting at paragraph 96 (as read
16 and/or reflected):

17 I conducted an empirical test
18 to compare the stock price
19 reactions on a sample of "news
20 days" to all other "non-news days."

21 If the underlying assumption is that those
22 days are news days, I typically want to don't use --
23 I mean, I would want to adjust for them somehow.

24 That having been said, if I exclude the
25 dummy variables, it doesn't change my results.

1 Q So what is the use of the dummy variable
2 designed to achieve?

3 A What is it designed to achieve?

4 It's designed -- I don't quite understand
5 the question.

6 It's -- yeah. I don't -- I'm sorry. I
7 don't understand the question.

8 Q You are focusing, in this analysis, on what
9 you term as "news days"; is that correct?

10 A Now, we're looking, again, at that
11 paragraph I was just citing? What are you -- are we
12 talking about the news/no-news analysis, or are we
13 talking about the event study?

14 Q So I'm talking about the use of dummy
15 variables.

16 Let's back up.

17 Your use of dummy variables to control for
18 potentially abnormal returns on news events for
19 which the company filed a form 8-K with the SEC, was
20 that in connection with the event study or the
21 news/no-news analysis?

22 A Well, because I did a news/no-news analysis
23 on days on which Company filed a form 8-K with the
24 SEC, that, I, then, included those dummy variables
25 in the market models I used.

1 Q Okay. So I'm trying to understand the
2 process.

3 You didn't include all 8-K days in your
4 news/no-news analysis, or did you?

5 A I didn't include all 8-K days.

6 I believe I used all 8-K days during the
7 Class Period.

8 Q For some of the 8-K days, did you use a
9 dummy variable?

10 A Oh, for each of the 8-K days, I used a
11 dummy variable.

12 Q Okay.

13 A Because under my news/no-news test, I am
14 trying to come up with an objective definition of
15 news.

16 And so I define "news" as 8-K days. To the
17 extent that the underlying assumption is, is that
18 the stock price would move on those news days, I
19 would usually want to remove that abnormal movement
20 out of my market models.

21 So it's something I commonly do.

22 Q So is it fair to say you're trying to
23 estimate the volatility of the stock to benchmark
24 whether the price movement is normal or abnormal?

25 A I'm sorry.

1 THE WITNESS: Can you read back that
2 question, please.

3 (The record was read back as
4 follows:

5 "Question: So is it fair to
6 say you're trying to estimate the
7 volatility of the stock to
8 benchmark whether the price
9 movement is normal or abnormal?")

10 THE WITNESS: I don't understand that
11 statement.

12 BY MR. ISAJIW:

13 Q Do you know how many -- just focusing on
14 the common stock, do you know how many days you
15 dummy out of your regression analysis for FXCM
16 common stock?

17 A 107 days. And I'm looking -- I'm now
18 reading from paragraph 97 of my report.

19 Q Out of approximately 1,230 days?

20 A Well, let's go to -- 1,231 days, yes.

21 Q Okay.

22 A Sorry. I'm reading from paragraph 104
23 there.

24 Q So that's roughly, what, 8 percent or so?

25 A That sounds right.

1 Q And for the bond, do you know how many days
2 you dummy out?

3 A Ten.

4 Q Okay.

5 And that's out of how many? Sixty-six, I
6 think?

7 A I believe that is correct, yes.

8 Q So that's roughly 15 or so percent?

9 A Sure.

10 Q Okay.

11 In your view, when conducting these
12 analysis, is there a threshold of days that would be
13 too high to dummy out and still have a reliable
14 analysis?

15 A Well, so this is the way I would put this.

16 I have seen courts reject models by
17 economists when they've dummied out, I don't know,
18 maybe 50 percent of the days. I don't remember the
19 case.

20 But it is the -- in this case, it is --
21 intellectually, it is the proper thing to do.

22 That having been said, if I exclude those
23 dummy variables except for those dummy variables
24 after -- immediately after the break or the stock
25 flash trash, my results do not change at all.

1 (Reporter clarification.)

2 BY MR. ISAJIW:

3 Q Okay.

4 Are you aware of any academic peer-reviewed
5 literature supporting the use of dummy variables in
6 connection with this type of analysis?

7 A Using dummy variables with an event study?
8 Sure.

9 But I can't give you -- I mean, I've seen
10 hundreds of articles use dummy variables in
11 performing event studies. I can't name them off the
12 top of my head.

13 Q Do you cite any in your report?

14 A You know, I don't remember if -- where are
15 we looking?

16 I don't remember -- I'm happy if you have
17 them. So it's possible that "The 'Less Than'
18 Efficient Capital Markets Hypothesis," in
19 Footnote 129 might have contained that, as well as
20 Footnote 131.

21 Here's another paper. "Use and Misuse of
22 Event Studies to Examine Market Efficiency," which
23 is a NERA working paper.

24 "The Curious Incident of the Dog That
25 Didn't Bark and Establishing Cause-and-Effect in

1 Class Action Securities Litigation."

2 I don't -- again, without having those
3 papers in front of me, I don't remember if they
4 specifically used dummy variables.

5 But, like I said, I've seen it used
6 numerous times. I've used it hundreds of times,
7 both in my role as an expert here, and then, you
8 know, when I used to work at places like
9 Cornerstone.

10 So it is a common practice.

11 That having been said, if I exclude those
12 dummy variables, save for the days in which
13 immediate -- that immediately followed the flash
14 crash, it does not alter my regression results at
15 all or my findings at all.

16 Q Okay.

17 A Forget the regression results.

18 Q Again, I'm just looking for the best
19 answers to my questions here. And when I asked if
20 you were aware of any academic peer-reviewed
21 literature supporting the use of dummy variables in
22 connection with this type of analysis, you looked
23 and read a number of the articles in the footnotes
24 of your paper.

25 Are you telling me specifically that these

1 articles support the use of dummy variables within
2 events -- these are academic peer-reviewed
3 literature supporting the use of dummy variables in
4 connection with this type of analysis?

5 A As I sit here, again, I don't recall.

6 Q Okay.

7 A If you would like to place the articles in
8 front of me, I'll be happy to look at them.

9 It is certainly possible that they -- as I
10 stated before, that they used dummy variables in
11 their analysis.

12 I guess there is an implicit assumption
13 that if they used dummy variables to conduct their
14 analysis that they are suggesting that they are in
15 support of that type of analysis.

16 Q Okay.

17 You also mention that courts criticize the
18 use of dummy variables at, I think you said,
19 50 percent or more.

20 A I can think of one case. I don't recall
21 the case. I don't recall what happened. I don't
22 recall -- I don't remember any details. So, yes,
23 there's at least one case I can think of.

24 I can also think of thousands of cases in
25 which courts have accepted dummy variables in this

1 type of analysis.

2 So, yes, there's one example I can think of
3 where they did not accept it and found a flaw with
4 it. There are thousands -- probably not thousands;
5 that might be an exaggeration -- hundreds where they
6 have been accepted and used.

7 Q In your view as an economist and an expert
8 witness conducting market efficiency analysis, is
9 there a threshold by percentage that is too high to
10 use for dummy variables in order to get reliable
11 results?

12 A That's not something I've ever thought
13 about.

14 Q Okay.

15 Would you -- you mentioned 50 percent
16 before and I recognize that that wasn't from a
17 specific recollection of a specific case, but could
18 you, sitting here today, believe that 50 percent
19 would be too high?

20 A I have no idea, as I sit here today. I
21 don't know what happened to that case.

22 I mean, it's complete speculation on my
23 part.

24 Q Independent of that case, have you ever
25 given any consideration about what level of dummy

1 variables would be too high to get reliable results
2 in connection with this type of an analysis?

3 A What level of dummy variables?

4 I --

5 THE WITNESS: Could you reread the
6 question, please.

7 (The record was read back as
8 follows:

9 "Question: Independent of
10 that case, have you ever given any
11 consideration about what level of
12 dummy variables would be too high
13 to get reliable results in
14 connection with this type of an
15 analysis?")

16 THE WITNESS: I have never thought about
17 levels. I -- and this analysis and all analysis I
18 attempt to do, I try to do the intellectually honest
19 thing.

20 That having been said, my results are
21 robust to the inclusion or exclusion of the majority
22 of those dummy variables, specifically the exclusion
23 of all of those 8-K dummy variables.

24 BY MR. ISAJIW:

25 Q Switching gears to your news/no-news

1 analysis, which I think you describe in and around
2 paragraph 49 on page 18.

3 A Paragraph 49.

4 Okay.

5 Q So in paragraph 49, you write (as read
6 and/or reflected:)

7 To determine whether the
8 requisite cause and effect
9 relationship existed, I performed a
10 collective test of the efficiency
11 of the market for FXCM's stock on a
12 broad set of FXCM news events that
13 occurred over the course of the
14 Class Period.

15 Did I read that correctly?

16 A That is correct.

17 Q And the cause-and-effect relationship that
18 you were testing to see whether it existed, that
19 related to Cammer Factor 5, the price impact of new
20 information?

21 A I believe that's correct.

22 Q For this -- the paragraph goes on to state
23 (as read and/or reflected:)

24 For the second empirical test,
25 I examined whether the proportion

1 of statistically significant
2 abnormal returns exhibited by FXCM
3 common stock on the news dates was
4 significantly different than the
5 proportion of statistically
6 abnormal returns on other dates --
7 I'm sorry -- on all other dates.
8 This test is often referred to as a
9 "news no-news test."

10 What does this test entail mechanically?

11 A So running the market models. Typically,
12 you -- again, you would use dummy variables on -- in
13 your market models on those days that you have
14 defined as news.

15 Well, so I guess the first thing you need
16 to do is define what a news day is.

17 So, you know what, let's just go to
18 paragraph 97 because that will give you a better
19 explanation.

20 (As read and/or reflected:)

21 First, one must define what
22 constitutes a "news" day. It is
23 important to use a specific and
24 objective criteria to identify news
25 events that contain a higher flow

1 of information.

2 For purposes of these tests, I
3 identify news days as unique days
4 on which the Company filed an 8-K.

5 Q Did you write that paragraph?

6 A Yes.

7 Q Yourself, from scratch?

8 A From scratch?

9 Q Uh-huh.

10 A Certainly at some point I have.

11 Q In connection with this report?

12 A I believe so.

13 Q The very first time you wrote that
14 paragraph was for this report?

15 MR. HAKLAY: Objection. Misstates.

16 THE WITNESS: That's -- that's not what I
17 said.

18 BY MR. ISAJIW:

19 Q I was asking if you wrote it from scratch
20 in connection with this report, and I think you said
21 "I believe so." So I was asking for clarity.

22 MR. HAKLAY: That's a mistake.

23 BY MR. ISAJIW:

24 Q Let's withdraw those questions.

25 A What I stated was is that I believe at some

1 point in time I have written that -- that sentence.

2 Q Okay.

3 A Because this is typically how I would do a
4 news/no-news analysis.

5 Q Okay.

6 A Now, did I go ahead and specifically type
7 out this sentence separately as opposed to use --
8 taking it from another report? I don't recall.

9 Q Okay.

10 Is it a fair summary of the news/no-news
11 test that you determined that there were news days
12 where FXCM issued 8-Ks and no-news days where there
13 were no 8-Ks, as -- that's the collection of
14 information you were looking at?

15 A Maybe I'm missing something.

16 THE WITNESS: Could you reread the
17 question, please.

18 (The record was read back as
19 follows:

20 "Question: Is it a fair
21 summary of the news/no-news test
22 that you determined that there were
23 news days where FXCM issued 8-Ks
24 and no-news days where there were
25 no 8-Ks, as -- that's the

1 collection of information you were
2 looking at?")

3 THE WITNESS: I don't believe that that
4 statement is necessarily correct.

5 I refer you to paragraph 97 in my report as
6 to what exactly I did.

7 BY MR. ISAJIW:

8 Q What do you believe is not correct about
9 that statement that I made?

10 A Well, I'm not sure how you are necessarily
11 defining news. And my guess is you mean news as in
12 all-company news.

13 And so I'm not sure -- I don't know what
14 definition of news you're using.

15 So to be specific -- as specific as
16 possible, I would like to rely on paragraph 97 to
17 accurately reflect my opinion in this matter.

18 Q So I was saying news days were days where
19 FXCM issued 8-Ks.

20 Is that different than the definition
21 you're using in paragraph 97?

22 A That has -- that is how, in this test, I
23 have defined news days.

24 Q And I also said that no-news days were
25 where there were no 8-Ks.

1 Is that different than how you defined it
2 in paragraph 97?

3 A That is the underlying assumption in this
4 model.

5 Q Okay.

6 A But that having been said, it's possible
7 that there are news days that aren't captured under
8 this definition. I am using this specific
9 definition as a news day.

10 Q Okay.

11 So if it counts as a news day for the
12 purpose of your news/no-news analysis, it had to be
13 an 8-K day?

14 A That is correct.

15 Q Okay.

16 Do you know of any peer-reviewed academic
17 studies supporting the use of the news/no-news test,
18 as you've set it forth here?

19 A Well, so I suppose -- I'm not sure that
20 there -- it's something that academicians would
21 normally look at.

22 That having been said, it is certainly --
23 when we talk about a news/no-news analysis, hold on.
24 One second.

25 Certainly the less and efficient capital

1 market hypothesis. This is the paper. Excuse me.
2 In paragraph 127. I believe they do it -- hold on.

3 And where am I? Paragraph 130. Maybe --
4 this may not be considered academic, but another
5 way, and I'm quoting from paragraph 101 (as read
6 and/or reflected:)

7 Another way to perform an
8 event study is to provide the days
9 of the Class Period ex ante into
10 expected news days and non-news
11 days before examining price
12 movements, and then compare the
13 stock's price movements in the two
14 categories to see if there's a
15 statistically significant
16 difference in price movement
17 between the two categories.

18 If the study finds a
19 difference in price movement
20 between the two sample sets (e.g.,
21 earnings-release dates versus
22 non-earnings-release dates), that
23 is statistical evidence that the
24 market incorporates new public
25 information into the price of the

1 stock.

2 And that is quoting from the (as read
3 and/or reflected:)

4 Brief of Testifying Economists
5 as Amici Curiae -- I'm sure I
6 botched that -- in Support of
7 Respondent, Haliburton,
8 Incorporated, and David Lesar v.,
9 Erica P. John Fund, Incorporated,
10 FKA Archdiocese of Milwaukee
11 Supporting Fund, February 5th,
12 2014, page 10.

13 So I don't know if that brief by all those
14 economists would be considered an academic article
15 or not, but they're certainly in favor of it.

16 Q As an academic, you don't know if a brief
17 filed in connection with a court proceeding would be
18 considered a peer-reviewed academic study?

19 A Well, I mean, it's -- it's presumably been
20 read by other peers.

21 So I -- it has not appeared -- to my
22 knowledge or to the best of my knowledge, it has not
23 appeared in a journal, but it certainly suggests
24 that the economists support that.

25 If you specifically want peer reviewed, as

1 normally defined in academia, at least off the top
2 of my head, I believe the article I noted in
3 paragraph 129 suggests this as a use.

4 MR. HAKLAY: You mean Footnote 129?

5 THE WITNESS: I'm sorry. Yes.

6 Footnote 129.

7 But, again, that's going off the top of my
8 head. I'm happy to look through the article if you
9 have it.

10 BY MR. ISAJIW:

11 Q Okay.

12 Have you used this news/no-news test when
13 evaluating market efficiency in prior engagements?

14 A You mean prior to issuing this report?

15 Q Yes.

16 A Yes.

17 Q Okay.

18 Roughly how many times?

19 Maybe it's an easier question to ask. In
20 what proportion of cases involving market efficiency
21 have you used this test? Most of them? Half of
22 them?

23 A Probably more than 20. I don't remember
24 exactly.

25 Q Twenty reports as opposed to 20 percent of

1 your reports?

2 A Yes.

3 Q Okay.

4 A But that's, again, that's complete
5 speculation on my part. I've used it what I would
6 consider to be numerous times.

7 Q In connection with this test, what would
8 you conclude if a security did not have a
9 significantly higher proportion of significant
10 returns on news days than it did on no-news days?

11 A That's an interesting question.

12 I would have to think about it. Do you
13 mean with regards to market efficiency?

14 Q Yes.

15 A It would -- obviously, it would depend on
16 the case because in determining market efficiency,
17 I'm looking at all eight factors.

18 Q Would that kind of finding be inconsistent
19 with the conclusion of market efficiency?

20 MR. HAKLAY: Objection. Asked and
21 answered.

22 THE WITNESS: Would it be inconsistent with
23 the definition of market efficiency?

24 BY MR. ISAJIW:

25 Q With the conclusion of market efficiency.

1 A Well, I mean, I can think of all sorts of
2 examples where you could get the wrong answer. Like
3 you identify, you know, you come up with a bad
4 definition of news days.

5 You know, maybe I decided that a news day
6 would be a Monday and so I dummed out all Mondays,
7 you know, that would give me a spurious result
8 presumably.

9 So it's not -- it's not something I've
10 given a lot of thought to, but I can certainly think
11 of situations where, you know, if the test is
12 misspecified, you're going to get bad results.

13 And so that -- it may -- yeah. Well,
14 that's it. I'll leave it at that.

15 Q Barring testing errors, if a security did
16 not have a significantly higher proportion of
17 significant returns on news days than it did on
18 no-news days, would that be inconsistent with the
19 conclusion of market efficiency?

20 MR. HAKLAY: Objection. Asked and
21 answered.

22 THE WITNESS: It would depend on the case.

23 So beyond testing errors, I mean, the
24 definition of a news day is something that's
25 integral to this process. And so you need to be

1 specific about how you define a news day.

2 So that wouldn't be a testing error. And
3 so -- I mean, there's all sorts of things. It's --
4 there's all sorts of things that go into this.

5 And so if you would like to be more
6 specific about your example, certainly I would take
7 under consideration that additional information, but
8 just on its face alone, not necessarily.

9 BY MR. ISAJIW:

10 Q So in a hypothetical where you do a
11 news/no-news test, you define news days as days with
12 8-Ks; you define no-news days as days without 8-Ks;
13 you run the analysis; and you conclude that the
14 security did not have a significantly higher
15 proportion of significant returns on the news days
16 than it did the no-news days, would that be
17 inconsistent with the conclusion that the security
18 traded in an efficient market?

19 MR. HAKLAY: Objection. Asked and
20 answered.

21 THE WITNESS: Yeah. I refer to my previous
22 answers. I don't have anything more I can say on
23 this topic.

24 BY MR. ISAJIW:

25 Q The only thing I was trying to add was in

1 your previous issue I believe you said if there was
2 an issue about defining news days. I was trying to
3 ask a new question defining news days as 8-K days.

4 A Ah. Okay. Yeah, I refer to my previous
5 answer.

6 Q I want to flip for a minute to the
7 Unger/Krogman factors in connection with the FXCM
8 common stock.

9 And this is your analysis on paragraphs 108
10 to 111.

11 A 108 to 111. Okay.

12 Q And that's paragraphs -- looks like page
13 42.

14 MR. HAKLAY: I think it's more than -- you
15 can ask him about those. I think that analysis goes
16 beyond 111.

17 MR. ISAJIW: I apologize. It begins on
18 page 42. Give me one second.

19 Just give me a second. I have a pretty
20 targeted question. I'm just trying to find it.

21 THE WITNESS: Okay.

22 BY MR. ISAJIW:

23 Q In paragraph 117, on page 44 --

24 A 117. Okay.

25 Q -- you've discussed the bid-ask spread.

1 And the bid-ask spread is one of the, to your
2 understanding, that's one of the Unger/Krogman
3 requirements -- sorry, factors; correct?

4 A Correct.

5 Q And you state that (as read and/or
6 reflected:)

7 The average bid-ask spread for
8 FXCM's common stock during the
9 Class Period was 0.28 percent.

10 Why is it important, in your view, to study
11 the bid-ask spread?

12 A Well, it's what the court requires. That's
13 what the court asks for. So I presented it.

14 Q So a number of times you have said that's
15 what the court asked for. You haven't been retained
16 by the court in this matter; right?

17 A No. But I have presented -- I have been
18 retained to present evidence that the court will
19 consider. And so to the extent that, in forming an
20 opinion about market efficiency, this is one of the
21 factors a court typically undertakes or looks at,
22 I've included it in my report.

23 Q Okay.

24 And you've been asked by the plaintiffs'
25 counsel to be an expert to submit a report that the

1 court will consider in connection with a
2 determination as to whether or not these securities
3 traded in an efficient market; is that correct?

4 A That sounds right.

5 Q Okay.

6 So as an expert economist, why as an
7 economist would you -- analyzing the bid-ask spread
8 be important in your determination as to whether or
9 not a market is efficient for FXCM's common stock?

10 A Well, so as an economist, I'm not sure I
11 would -- undertaking an academic exercise, I'm not
12 sure I would normally look at whether or not FXCM
13 traded in an efficient market.

14 To the extent that this is something that
15 is commonly relied upon by courts and their
16 determination of market efficiency, I have included
17 this analysis.

18 Q Okay.

19 In your determination as an economist, do
20 you have a belief that a narrow bid-ask spread is --
21 tends to support the concept that a security traded
22 in an efficient market?

23 A Tends to?

24 I believe it -- some economists -- well,
25 let's see. I'm pretty sure -- right. So -- and

1 this is paragraph 7 of my appendix.

2 MR. HAKLAY: What page are you on, sir?

3 THE WITNESS: Page 62.

4 MR. HAKLAY: Thank you.

5 THE WITNESS: So (as read and/or
6 reflected:)

7 A narrow bid-ask spread of a
8 particular security is also often
9 associated with efficiency. In
10 academia, a stock's bid-ask spread
11 is frequently used as a measure of
12 liquidity or cost of trading.

13 (Reporter clarification.)

14 THE WITNESS: So that's my understanding of
15 bid-ask spread in academia and why it's sometimes
16 looked at.

17 I don't know of a specific paper in
18 academia -- well, let me correct that.

19 There might be papers that talk about
20 market efficiency and bid-ask spread.

21 But I personally have presented it here
22 based upon my assignment and what my understanding
23 of what courts like to look at in their
24 determination of market efficiency.

25 ///

1 BY MR. ISAJIW:

2 Q Independent of -- if a court did not have
3 an opinion that looked at bid-ask spread, would you
4 view it as an important thing to evaluate in
5 connection with your analysis as to whether or not
6 FXCM securities traded in an efficient market?

7 A So if I was performing an academic study
8 where I was trying to determine whether an
9 individual stock traded in an efficient market,
10 that's not anything I've ever seen.

11 But given your hypothetical, which, again,
12 I have never seen that I recall anyway in academia,
13 it may be a factor that I would take into
14 consideration, but it's an incomplete hypothetical
15 and not something that most academicians would ever
16 consider or take into consideration.

17 Not the bid-ask spread. I'm saying most
18 academicians would not perform an event study for a
19 single stock.

20 Q Just in this same section on Unger/Krogman,
21 you discuss two additional factors, market
22 capitalization and float?

23 A I'm sorry. I closed this. What page are
24 we looking at?

25 Q 42 and 43.

1 A 42 and 43.

2 Q For market capitalization as an economist
3 conducting this analysis, do you have an independent
4 view as to whether or not market capitalization is
5 relevant to a determination of trading in an
6 efficient market?

7 A Again, I don't think economists --
8 academicians look at a single company and try to
9 determine whether or not a single stock trades in an
10 efficient market.

11 Now, that having been said, let me take a
12 look at my appendix here.

13 Q I'm not asking for support from others.
14 I'm just asking for your view today.

15 A Right.

16 Well, and so I'm refreshing my memory of
17 what other economists have said and that will, then,
18 help refresh my memory as to how I -- what my
19 position on such things are.

20 Yeah. So -- yeah. So Fama -- right. It
21 says (as read and/or reflected:)

22 Similarly, financial
23 economists have considered the
24 market value -- I'm reading from
25 paragraph 6 of my appendix -- and

1 its relationship with market
2 efficiency. Larger companies tend
3 to attract more analysts and news
4 media coverage and gain the
5 attention of a greater number of
6 investors.

7 MR. HAKLAY: Slow down.

8 THE WITNESS: Oh, sorry.

9 A little too much Coke.

10 MR. HAKLAY: Keep going.

11 THE WITNESS: (As read and/or reflected:)

12 All of these characteristics,
13 which accompany a large market
14 capitalization, promote, and,
15 therefore, tend to support, market
16 efficiency.

17 So I agree with that statement.

18 BY MR. ISAJIW:

19 Q For float, again, I'm not asking what other
20 economists believe. I'm asking what you, sitting
21 here today as an economist, believe, does the size
22 of the public float -- is the size of the public
23 float relevant in your professional opinion to
24 whether a security trades in an efficient market?

25 A Well, so -- okay.

1 So you talked about my professional opinion
2 as an academician. I don't believe I've ever seen
3 any academic articles that discuss float as a factor
4 in market efficiency. And so that informs my
5 opinion.

6 I mean, look at if no one ever looked at it
7 before, I might say, well, okay, then I probably
8 wouldn't look at it. Right. Seems reasonable.

9 So to the extent that I'm not sure I've
10 seen it discussed anywhere, I don't -- I don't think
11 float in and of itself is some kind of magic
12 criterion.

13 But, again, the courts find it informative.
14 That's what -- this is one of the factors that they
15 consider in their analysis. And so I present it
16 here in my report.

17 Q Okay.

18 Let's take a look at the note section of
19 your report, starting on page 45. I just wanted to
20 go through some of the Cammer factors with respect
21 to the notes.

22 Before we start: Are you aware of any
23 court ruling suggesting that there could be a
24 presumption of efficiency for bonds based on the
25 same analysis that you performed for the common

1 stock?

2 A I have no idea.

3 Q Okay.

4 In your professional opinion, do you
5 believe it's appropriate to apply the same Cammer
6 factors in an analysis of market efficiency to bonds
7 as it is for common stock?

8 A Well, so let's go to my report,
9 paragraph 119 (as read and/or reflected:)

10 In assessing bond market
11 efficiency, courts recognize that
12 bond characteristics are distinct
13 from common stock characteristics.
14 And that cites to at least one securities
15 case. (As read and/or reflected:)

16 The indicia typically relied
17 upon in assessing market efficiency
18 for equity securities need to
19 therefore be adjusted, when
20 appropriate, for the bond market.

21 Trading behavior --

22 Now in paragraph 120 (as read and/or
23 reflected:)

24 Trading behavior in the bond
25 market can differ drastically from

1 the stock market. Because the bond
2 market is comprised of large
3 institutional investors, pension
4 funds, and hedge funds that trade
5 in much larger volumes per
6 transaction than typical trades in
7 the stock market, bonds also trade
8 less frequently than typical
9 stocks.

10 Though the trading frequency
11 in the bond market is typically
12 lower, participants in the bond
13 market, being institutions, pension
14 funds, and hedge funds, are
15 nonetheless very well-informed
16 traders.

17 Thus, even if the FXCM notes
18 do not trade every day during the
19 Class Period, this pattern is
20 typical in the bond market, is not
21 unique to FXCM notes and does not
22 indicate an efficient market --
23 MR. HAKLAY: An inefficient market.
24 THE WITNESS: -- an inefficient market.
25 Thank you very much.

1 BY MR. ISAJIW:

2 Q Okay. Thank you for that.

3 You just mentioned in your response,
4 patterns that are typical for the bond market.

5 What, in your experience, would be the
6 typical trading volume or turnover as a percentage
7 of par for a corporate bond?

8 A I have no way to answer that.

9 Typical? I have no idea.

10 Q Okay.

11 Do you believe that a typical corporate
12 bond would trade in any way that is different from a
13 typical Rule 144A bond?

14 A Do I think a corporate bond would trade --
15 so what do you mean by "trade"?

16 Q What does the term "trading bonds" mean to
17 you?

18 A Well, I'm trying -- I mean, bonds being
19 sold back and forth.

20 Q Okay.

21 Do you believe a typical corporate bond
22 would be sold back and forth at a higher or lower
23 level than a typical Rule 144A bond?

24 A That's not something I ever thought about.

25 Q Do you believe that bonds generally trade

1 as frequently as stocks trade?

2 MR. HAKLAY: Objection. Vague.

3 You can answer.

4 THE WITNESS: I think bonds typically trade
5 less -- normally, if I were to look at one
6 corporation's equity and its bonds, normally the --
7 there would be more frequent trading in the equity
8 than in the bond. I guess -- so if that's your
9 definition of frequency, I guess that addresses
10 that.

11 Q I believe in paragraph 120 where you just
12 read, four lines down, there's a sentence that says
13 (as read and/or reflected:)

14 Though the trading frequency
15 in the bond market is typically
16 lower, participants in the bond
17 market, being institutions, pension
18 funds, and hedge funds, are
19 nonetheless very well-informed
20 traders.

21 Did I read that correctly?

22 A That is correct.

23 Q And when you say "typically lower," what
24 are you comparing it to?

25 A The equity market.

1 Q Okay.

2 And what is the basis for your statement
3 that participants in the bond market are nonetheless
4 very well-informed traders?

5 A My understanding of the bond market.

6 Q Who are participants in the bond market,
7 based on your understanding?

8 A Well, again, quoting from paragraph 120 (as
9 read and/or reflected:)

10 Institutions, pension funds,
11 and hedge funds.

12 Now, obviously that does not -- although
13 those are typically informed traders, that obviously
14 doesn't exclude individuals.

15 BY MR. ISAJIW:

16 Q Cammer Factor 1, I believe we discussed
17 earlier today, focuses on the volume of trading in
18 connection with the security; is that correct?

19 A Correct.

20 Q And generally, higher volume of trading, I
21 think, would be associated with more likely
22 efficient market than lower trading?

23 A I think courts have found that, what is it?
24 Over 2 percent -- oh, let me go back to my other
25 discussion in Cammer Factor 1.

1 Q So regardless of actual percentages, you
2 state in paragraph 120, in the last sentence, that
3 the lower trading frequency of FXCM notes (as read
4 and/or reflected:)

5 Does not indicate an
6 inefficient market.

7 Why not?

8 A Because bonds typically trade less
9 frequently than equities.

10 Q Is there a threshold of trading below which
11 you think would be an indication of an inefficient
12 market?

13 A Hmm. That's not something I've thought
14 about. And to the extent that this met the
15 2 percent threshold that's been specified previously
16 by the Cammer court, that's not something I've
17 really thought about.

18 Q In paragraph 125, you determine that the
19 (as read and/or reflected:)

20 Trading volume as a percentage
21 of par value of outstanding notes
22 for the FXCM notes was
23 2.92 percent.

24 Is that correct?

25 A That is correct.

1 Q You go on to say (as read and/or
2 reflected:)

3 This level of average weekly
4 trading volume exceeded the Cammer
5 benchmark of 2 percent necessary
6 for a "strong presumption" of
7 market efficiency for common stock
8 securities.

9 (Reporter clarification.)

10 BY MR. ISAJIW:

11 Q Did I read that correct?

12 A You did.

13 Q Okay.

14 The 2.9 percent based on that sentence
15 there was related to common stock; right?

16 A You mean the court's -- when the court was
17 discussing Cammer, were they referring to equity?
18 Yes.

19 Q Okay.

20 And they weren't -- the 2.92 percent
21 threshold was not in connection with the notes;
22 right, with the fixed income or debt security?

23 A Well, that was -- I don't understand the
24 question.

25 The 2.92 percent was the average weekly

1 trading volume of the notes.

2 Q Okay.

3 So from your perspective, and you're doing
4 the analysis, is the analysis equal?

5 Is 2.92 percent good enough for common
6 stock; same should be true for notes? Or do you
7 need to adjust the analysis in some way when you're
8 dealing with notes?

9 A I'm sorry. I just don't understand the
10 question.

11 It's -- the court has determined in Cammer
12 that 2 percent is sufficient for equities. To the
13 extent that I've stated here that bonds trade less
14 frequently than equity, the fact that it meets that
15 2 percent threshold might indicate to the court,
16 probably would be considered by the court in their
17 determination as to whether or not these bonds
18 traded in the efficient market.

19 That's the answer to the best of my
20 ability. I'm not quite sure I understand the
21 question.

22 Q So the trading period you used to analyze
23 the notes was January 24th, 2014, to February 6th,
24 2017; correct?

25 A I'm sorry. Where are you looking?

1 Q I'm sorry. I said "January." I meant
2 "June."

3 A Where are you looking?

4 Q This is the notes trading period. I'm not
5 pointing to a particular part of your report.

6 It is a part of your report.

7 A Right. So yes.

8 (As read and/or reflected:)

9 The test described herein for
10 the F- -- and I'm reading from
11 paragraph 122 now -- for the FXCM
12 notes were performed over the
13 period during the Class Period when
14 trading data was available,
15 June 24th, 2014, through
16 February 6th, 2017.

17 Q Would you concede that there was not an
18 efficient market for the notes before they began
19 trading on June 24, 2014?

20 A I don't know enough about the notes,
21 sitting here, to opine on that.

22 Are you telling me that that's what
23 happened?

24 Q I'm just asking the question.

25 The notes were issued before June 24th,

1 2014; correct?

2 A Let's see what he said.

3 Okay. Could you reask the question,
4 please.

5 Q Would you concede that there was not an
6 efficient market for the notes before they began
7 trading on June 24th, 2014?

8 A That was not something that I was asked to
9 look at.

10 Q Do you agree that before June 24th, 2014,
11 the notes were issued?

12 A That's my -- well, I don't -- I believe
13 that is true.

14 Q Okay.

15 Do you believe that -- strike that.

16 You were not asked to opine on the
17 efficiency of the notes prior to June 24th, 2014?

18 A That is correct.

19 Q In connection with your notes analysis, you
20 found an average weekly trading volume of 292 over
21 the entire Notes Period.

22 Sorry. I said "292." I meant
23 2.92 percent.

24 A Correct.

25 Q Okay.

1 Did you calculate a median weekly trading
2 volume over the same period?

3 A I did not.

4 Q Would it surprise you to know that the
5 median weekly trading volume for the notes over that
6 same percent was 0.54 percent?

7 MR. HAKLAY: Objection. Relevance.

8 THE WITNESS: Would it surprise me?

9 BY MR. ISAJIW:

10 Q Yeah.

11 A Well, I've never seen a court look at
12 median statistics when looking at this -- doing this
13 type of analysis.

14 Would it surprise me? I guess that's the
15 actual question. I don't know. It's not something
16 I really ever thought about.

17 Q Okay.

18 A As I said, look, bonds are different than
19 stocks. They trade less frequently.

20 Q In your analysis, would the significantly
21 lower median trading of the notes during the time
22 period be relevant to whether or not they traded in
23 an efficient market throughout that entire time
24 period?

25 A Not necessarily.

1 Q Would it be irrelevant?

2 A Would it be irrelevant?

3 Well, I mean, to the extent that any
4 information has value, I suppose it, by definition,
5 would be relevant. So I -- or would not be
6 irrelevant. That's a double-negative.

7 So I don't know. It's a philosophical
8 matter. I would need to think about that more.

9 Q Do you have any idea why the weekly trading
10 volume, as you calculated it, and the mean trading
11 volume would be so different?

12 MR. HAKLAY: You mean "median"? I thought
13 you said "mean." That's why.

14 MR. ISAJIW: Apparently, I did say "mean"
15 and I meant "median."

16 MR. HAKLAY: It's otherwise the same.

17 THE WITNESS: You're asking me why the mean
18 and median are different?

19 BY MR. ISAJIW:

20 Q Yeah.

21 A Again, bonds tend to trade less frequently
22 than equities, so it wouldn't surprise me that the
23 mean and median are different.

24 Q If you look at Exhibit 3b on page 101 of
25 your report.

1 A Exhibit 3b, did you say?

2 Q I did.

3 A Okay.

4 Q I'm sorry. I said "page 101" and I meant
5 page 100.

6 A Ah, okay. Yep.

7 Q Is one explanation for the difference
8 between the average weekly and the median trading
9 volume the fact that there were small number of a
10 high-volume weeks at the beginning of the trading
11 period for the bond as composed to the rest of the
12 period?

13 A I'm sorry. High volume during the
14 beginning of the trading period?

15 Q Yes.

16 A I'm not quite sure I would agree with that
17 characterization. But, I mean, I agree that there's
18 a difference between -- I would expect that there's
19 a difference between the median and the mean.

20 Q So of --

21 A I have presented what the court's asked
22 me -- or usually asked experts to present. So
23 that's what I did.

24 Q Okay.

25 And other than the fact that the courts

1 usually ask experts to present on this information,
2 you have no independent view of the information's
3 meaningfulness?

4 A Hmm. Interesting question.

5 THE WITNESS: Could you repeat the
6 question, please.

7 (The record was read back as
8 follows:

9 "Question: And other than the
10 fact that the courts usually ask
11 experts to present on this
12 information, you have no
13 independent view of the
14 information's meaningfulness?")

15 THE WITNESS: I was asked to opine upon
16 market efficiency for FXCM and their equities and
17 notes.

18 Beyond my -- beyond my job in this case,
19 I'm not sure that's -- your questions are things
20 that I've thought about.

21 BY MR. ISAJIW:

22 Q Okay.

23 Would it be relevant in your analysis if
24 the notes had, during the entire period, only
25 35 weeks with volume over 2 percent, but 103 weeks

1 with volume under 2 percent?

2 A Would it be relevant to my analysis?

3 Well, again, to the extent that courts look
4 at average trading volume, no, that would not be
5 relevant to my analysis.

6 Q Did you analyze the notes trading on a
7 quarterly basis?

8 A Did I analyze the notes traded on a
9 quarterly basis?

10 I'm not sure how to answer that question.
11 I looked at average weekly trading volume. I
12 don't -- I mean, I suppose I could somehow aggregate
13 these things into quarters.

14 Q Okay.

15 And you looked at average weekly trading
16 volume because that is what you understand courts to
17 look at as a relevant factor?

18 A That -- under Cammer, that is correct.

19 Q If a security had an average weekly trading
20 volume of 0.5 percent over several quarters within a
21 period, would you view that as consistent with an
22 efficient market in connection with Cammer Factor 1?

23 A It certainly could be, but it wouldn't --
24 yeah, it certainly could be.

25 Q Is there any situation where it would not

1 be?

2 A So it would not be what?

3 Q Consistent with an efficient market in
4 connection with Cammer Factor 1.

5 A Is there a case where it would not be
6 consistent with -- is there a double-negative in
7 there? I don't know why I'm tripping over this.

8 Could you just restate the question and
9 I'll try to answer it.

10 Q In your expert -- in your analysis, if you
11 looked at a security whose average weekly trading
12 volume was 0.05 percent over several quarters of a
13 Class Period, would you perceive that to be an
14 indication of it being in an inefficient market
15 pursuant to Cammer Factor 1?

16 MR. HAKLAY: Objection. Asked and
17 answered.

18 Go ahead.

19 THE WITNESS: It would depend on the
20 security.

21 Certainly -- I mean, look, if I present --
22 I don't remember. Did you say "average"?

23 I'm pretty sure a court would -- well, I'm
24 not going to speculate what a court would do.

25 ///

1 BY MR. ISAJIW:

2 Q I'm not asking for a court's opinion. I'm
3 asking for yours.

4 A Yeah. And so it would depend upon the type
5 of security.

6 Q If the security was a Rule 144A note.

7 A And so what happened with the Rule 144A
8 notes? The average -- was it the average trading
9 volume you were talking about?

10 Q If it had an average weekly trading volume
11 of 0.5 percent over several quarters within a Class
12 Period, would that be consistent with market
13 efficiency pursuant to Cammer Factor 1?

14 MR. HAKLAY: Objection. Asked and
15 answered.

16 THE WITNESS: I don't -- I mean, pursuant
17 to Cammer Factor 1?

18 Cammer Factor 1 gives you a specific
19 benchmark at least for equities.

20 We -- I think we've read paragraph 120
21 numerous times. Bonds are a different animal. So I
22 don't know how to answer your question because
23 Cammer Factor 1, at least the Cammer court gave us
24 some thresholds. So I don't know how to answer your
25 question.

1 BY MR. ISAJIW:

2 Q What were those thresholds?

3 A 2 percent and 1 percent.

4 Q And 0.5 percent in my hypothetical is below
5 those thresholds; correct?

6 A In your hypothetical?

7 Q Yeah.

8 A Yes. But it's not -- again, the Cammer
9 court was not ruling on bonds. This was an analysis
10 of equities.

11 Q Okay. Thank you.

12 Let's move to Cammer Factor 2.

13 MR. HAKLAY: Let's take a -- it's been an
14 hour. Let's take a break. The witness has
15 indicated to me he would like to take a break.

16 MR. ISAJIW: When did he indicate that?

17 MR. HAKLAY: About ten minutes ago. I told
18 him it was ten more minutes until the hour goes by.

19 MR. ISAJIW: I apologize.

20 THE WITNESS: He is right. I did.

21 MR. HAKLAY: He's doing his watch thing and
22 I'm, like, ten more minutes.

23 MR. ISAJIW: He did not indicate to me.

24 MR. HAKLAY: No. No. No. He looked at me
25 and I slapped him down.

1 MR. ISAJIW: All right. We can go off.

2 THE VIDEOGRAPHER: We're going off the
3 record.

4 The time is 2:46 p.m.

5 (Recess was taken at 2:46 p.m.
6 until 2:59 p.m.)

7 THE VIDEOGRAPHER: We are back on the
8 record.

9 The time is 2:59 p.m.

10 BY MR. ISAJIW:

11 Q So, Dr. Werner, I want to focus on Cammer
12 Factor 2 in relation to the notes, which is an
13 analysis that begins on page 47.

14 Are you there?

15 A I am. Oh, sorry, yes.

16 Q Here is an example where you take a
17 slightly different approach for the notes than you
18 do with the stock in connection with analyst reports
19 where you look at, quote, other avenues of
20 information dissemination.

21 A I'm sorry. Where are you looking at?

22 Oh, because it -- oh, I see where you're
23 reading.

24 Go ahead.

25 Q Why did you do that?

1 A I'm not sure -- I mean -- while that is the
2 statement, I'm not sure that that's an accurate
3 statement. So let's go back to my discussion of
4 equities.

5 Yeah, that's poorly worded on my part.

6 Q So you did not look at other avenues of
7 information dissemination?

8 A I looked at analysts following FXCM. So I
9 did that for equities.

10 I looked at their conference calls in both
11 cases.

12 What -- I'm sorry. Just let me finish
13 here.

14 And I looked at news articles. Maybe -- I
15 mean, I believe I -- again, I think I was just
16 inartful in stating that.

17 Q Okay.

18 A Oh, wait. I'm sorry. It's been a long
19 day.

20 Q Did you -- let's just go back to your
21 analyst report.

22 Do you remember how many analyst reports
23 were issued over the full Class Period? It's
24 paragraph 27 of your report. That's the number.

25 A I'm sorry. Paragraph 27?

1 Okay. Now, I understand why I say a
2 different approach or additional analyses.

3 So -- right. During the Class Period,
4 1,608 stories -- this was for the equity Class
5 Period.

6 Q Uh-huh.

7 So in paragraph 27, the last sentence, you
8 say that (as read and/or reflected:)

9 These firms and analysts
10 released at least 263 reports and
11 recommendations during the Class
12 Period.

13 A That is correct.

14 Q And then in paragraph 126 --

15 A Let me just write down that number.
16 Are you going to refer back to that number?

17 Q I am.

18 A Okay. So where was that? 263. Okay.

19 Q And in paragraph 126 on page 47 --
20 actually, part of 126 that bleeds over to 48. You
21 say (as read and/or reflected:)

22 These firms and analysts
23 released at least 89 reports and
24 recommendations during the Notes
25 Period.

1 Do you see that?

2 A I do.

3 Q So that's a significantly fewer number of
4 reports; 263 versus 89?

5 A Well, I would agree it's fewer. We're
6 looking at different periods of time.

7 So by definition, yes, 89 is less than 263.

8 Q Okay.

9 And for the notes, you found that
10 12 analysts followed FXCM during the Note Period?

11 A That is what is stated in our
12 paragraph 120, yeah.

13 Q And how did you conduct that analysis to
14 figure out the 12? Did you actually just add them
15 all up yourself, or did somebody provide you with
16 that information?

17 A Did I add them all up myself?

18 I believe that information was provided to
19 me.

20 Q Okay.

21 And of the analysts that covered the
22 company in this period, in paragraph 127, you
23 indicate that three did not issue reports; is that
24 right?

25 A Well, I believe that, yes, that is the gist

1 of what I was saying in that paragraph.

2 Q In connection with a Cammer Factor 2
3 analysis of analyst coverage, does the fact that an
4 analyst doesn't issue a report weigh in favor of
5 finding market -- an efficient market or against?

6 A I don't think that's something I've ever
7 seen discussed in discussions of Cammer Factor 2.

8 Q Regardless of whether or not you've seen it
9 discussed, do you have an opinion, sitting here
10 today?

11 A No.

12 Q Of all the analyst reports that you
13 considered in connection with your review, were any
14 of them specifically covering the FXCM notes?

15 A I remember seeing a couple.

16 Q Do you remember which ones?

17 A I do not as I sit here today.

18 Q And how many is a couple?

19 A I don't recall.

20 But, again -- I mean, it's not clear to me
21 why the information -- the information would still
22 be firm relevance, so -- but, again, I don't
23 remember. We'll leave it at that.

24 Q When you say "a couple," do you mean five?
25 Ten? A hundred?

1 A Where was that?

2 Q We determined that there were 89 reports
3 and recommendations.

4 A Right. So that's the number I was looking
5 for. So, yeah, it would definitely be less than a
6 hundred.

7 Q Okay.

8 A But I don't remember.

9 Q Would it be 89?

10 A No.

11 Q Okay.

12 Would it be 40?

13 A I don't -- I -- again, a couple.

14 Q Okay.

15 A So less than five.

16 Q Okay.

17 A Less than ten. Is that sufficient?

18 Q That's fine. I'm just trying to get a
19 gauge.

20 So the analyst reports tended not to refer
21 to the FXCM notes?

22 A They referred to the economic conditions of
23 the company, which would affect the FXCM notes.

24 Q Did they also refer to the stock?

25 A Yes.

1 Q Okay.

2 So they specifically discussed one of the
3 securities at issue in this litigation, but they did
4 not discuss the other?

5 A To the extent that they were not reports
6 that discuss both, I believe that statement is
7 accurate.

8 Q And I think what we're getting at is the
9 majority of the reports you looked at were not both,
10 only --

11 A I -- again, I said "a couple." Less than
12 five or ten. That's the answer.

13 Q Is it relevant in your analysis as to
14 whether or not an analyst discusses the specific
15 security at issue in connection with the market that
16 you're studying?

17 A Not necessarily.

18 Q Why not?

19 A Why? Because we're worried about firm
20 information and its impact on securities.

21 And so to the extent that an analyst report
22 is talking about the firm's financial condition,
23 that is going to affect both equity and stock.

24 Q Would it be more likely that a security
25 trades in an efficient market if the analyst

1 discussed the security as opposed to just the
2 company?

3 A That's an interesting question. I've never
4 really thought about that.

5 I would need to think about that more.

6 Q Sitting here today, you have no view on
7 that?

8 A It's -- well, yeah, I would want to think
9 about that more.

10 Q One of the things you considered in your
11 analysis for Cammer Factor 2 for your notes that you
12 did not for the common stock is institutional
13 ownership.

14 A That is correct.

15 Q Why is that?

16 A Because these -- as economists, we
17 typically think of these institutions as more
18 informed, and, thus, the fact that they held those
19 would suggest that information was incorporated into
20 the bond prices.

21 Q Okay.

22 Is it -- what is your understanding as to
23 who -- who is eligible to purchase the FXCM notes at
24 issue in this case?

25 A Well, I -- I need to refer somewhere else

1 in my report, but looking at paragraph 130, (as read
2 and/or reflected:)

3 Because Rule 144A notes are
4 held and traded solely as by QIBs,
5 the entire issue of the FXCM notes
6 was owned by an institutional
7 investors.

8 I don't remember what -- it's, like,
9 qualified in -- I don't remember exactly what QIB
10 stands for or the exact -- something about qualified
11 investors. So I think I have that somewhere else in
12 my report.

13 Q Okay.

14 What is your understanding of what a
15 Rule 144A note is just at a very high level?

16 A Well, I mean, it's a bond offering
17 obviously. It can only be -- it can only be held by
18 QIB investors. But I think --

19 Q Is that true of all bond offerings, that
20 they can only be held by QIB investors?

21 A No.

22 Q What's different at a high level between
23 Rule 144A notes and other bond offerings?

24 A Well, so these are -- and I'm reading from
25 paragraph 21 (as read and/or reflected:)

1 Notes that are not registered
2 with the SEC and are exempt from
3 the typical registration
4 requirements are commonly referred
5 to as Rule 144A issues.

6 Notes issued under Rule 144A
7 can only be traded by qualified
8 "investment" buyers, hence QIBs --
9 MR. HAKLAY: I think it's "institutional."

10 THE WITNESS: What did I say?

11 MR. HAKLAY: "Investors."

12 THE WITNESS: (As read and/or reflected:)

13 -- qualified institutional
14 buyers, which are entities acting
15 for [their] own account or the
16 accounts of other qualified
17 institutional buyers, that in the
18 aggregate owns and invests on a
19 discretionary basis at least
20 \$100 million in security of issuers
21 that are not affiliated with the
22 entity.

23 BY MR. ISAJIW:

24 Q Other than what's on that paragraph, do you
25 have any other understanding of Rule 144A?

1 A I think that gives an accurate description
2 of my understanding of Rule 144A.

3 Q And that's the entirety of your
4 understanding of Rule 144A as it relates to your
5 opinions in this case?

6 A I don't know. It's an overly broad
7 question. I'm not sure how to answer that.

8 Q Have you ever done an event -- I'm sorry.
9 Have you ever done a market efficiency
10 analysis in any other matters related to Rule 144A
11 bonds?

12 A So yes.

13 Q Which ones?

14 A I don't know. I mean, I've done hundreds
15 of cases over my lifetime.

16 Q How many of those hundreds of cases do you
17 believe had to do with Rule 144A notes?

18 A I have no idea.

19 Q Proportionately, do you think it is
20 20 percent? 10 percent? 5 percent?

21 A In my lifetime, in terms of cases that I've
22 worked on?

23 Q In the last ten years.

24 A Okay.

25 Let me ask a clarifying question. Do you

1 mean issued expert reports on?

2 Q Let's start there.

3 A Okay.

4 Because that is a different question than
5 what you asked me.

6 Q Okay.

7 Let's ask that question.

8 A I have no idea.

9 Q How many times have you issued an expert
10 report on Rule 144A bonds?

11 A I have no idea.

12 Q Other than this case, do you remember that
13 you have, in fact, issued an expert report on a
14 Rule 144A bond?

15 A I'll stick with I have no idea.

16 Q What about just being engaged as a
17 consultant? How many times have you been engaged as
18 a consultant in connection with an analysis for an
19 efficient market in a Rule 144A bond?

20 A Yeah, I don't recall. When did I start --
21 well, let's go to my ...

22 Q I'm not looking for exact numbers. Is it
23 at least once?

24 A Sure.

25 Q Okay.

1 Is it more than 20?

2 A Again, at this point -- at that point, I
3 would be speculating.

4 Q Okay.

5 A I have no idea -- when I say "I have no
6 idea," I mean I have no idea. If -- I know it's
7 more than one, less than 20. I have no idea.

8 Q Okay.

9 A I'm giving you the best answer I possibly
10 can give you.

11 Q I appreciate that and I'm trying to make
12 sure we get to there. So ...

13 In connection with your Cammer Factor 2
14 analysis of the FXCM notes, would you consider
15 coverage by rating agencies to be potentially
16 important?

17 A With regards to 144A bonds? I'm sorry.

18 THE WITNESS: Could you reread the
19 question.

20 (The record was read back as
21 follows:

22 "Question: In connection with
23 your Cammer Factor 2 analysis of
24 the FXCM notes, would you consider
25 coverage by rating agencies to be

1 potentially important?")

2 THE WITNESS: So when you say "coverage by
3 the rating agencies," do you mean of the bonds?

4 BY MR. ISAJIW:

5 Q What is your understanding of what a credit
6 rating agency does when it covers a fixed income
7 security?

8 A Well, it performs analysis. It looks at --

9 Q What kind of --

10 A Looks at things like the firm's
11 profitability.

12 Q To do -- to determine what?

13 A How "safe" the bonds are for -- well, and I
14 put safe in quotation marks because rating agencies
15 don't always do the best jobs.

16 To help inform people about whether or not
17 the risk associated with holding these securities.

18 Q Do you have a view as an economist as to
19 whether or not a bond being covered by a rating
20 agency would tend to support it being traded in an
21 efficient market?

22 A I could certainly see where that would be
23 something that I might take into consideration.

24 And I can think of other cases where I have
25 looked at that.

1 Q Okay.

2 Would the lack of rating agency coverage
3 for a security tend to be inconsistent with the
4 conclusion that it traded in an efficient market?

5 A Not necessarily.

6 Q But possibly?

7 A Anything is possible.

8 Q Is it more likely that a security trades in
9 an efficient market if it is covered or not covered
10 by a rating agency?

11 A That's not any -- that's not a question
12 I've ever been asked to consider, so it's not
13 something I've ever thought about.

14 Q Okay.

15 Sitting here today, you've never thought of
16 it once?

17 A No.

18 Q Okay.

19 Do you know if these FXCM notes were
20 covered by a rating agency?

21 A I don't believe so, but I don't -- I don't
22 specifically recall.

23 Q Is it something that you looked into when
24 you were conducting your analysis?

25 A As I sit here, I don't recall. I mean --

1 here. I'm sorry. Let's be more precise.

2 Yeah. To the best of my recollection, I
3 don't believe they were covered by a ratings agency.

4 Q Okay.

5 Looking at page 48, under Cammer Factor 2,
6 one of the additional factors you looked at is
7 institutional ownership.

8 Do you know which institutions transacted
9 in the notes during the Notes Period?

10 A As I sit here today, no.

11 Q Is it anywhere in your report?

12 A I don't believe so.

13 Q Is that information available to you?

14 A I don't believe so.

15 Q Did you request it?

16 A No.

17 Q So let's move to Cammer Factor 3,
18 "Prominent Underwriters and Market Makers."

19 This is another example where you took a
20 slightly different analysis from the common stock to
21 the notes in that you discuss not only market makers
22 but also underwriters; is that correct?

23 A Correct.

24 Q Why is that at a very high level?

25 A At a very high level? Well, underwriters

1 oftentimes make markets -- well, let's -- yeah. As
2 I stated here (as read and/or reflected:)

3 Investment banks that
4 underwrite --

5 And I'm looking at paragraph 132. (As read
6 and/or reflected:)

7 Investment banks that
8 underwrite notes typically then
9 serve as market makers for the
10 notes.

11 It would be a mistake to think
12 that once the bonds are all sold,
13 the investment banking firm's ties
14 with the deal are ended. Those who
15 bought the bonds will look to the
16 investment banking firm to make a
17 market in the issue. This means
18 that the investment banking firm
19 must be willing to take a principal
20 position in a secondary market
21 transaction.

22 Q And the footnote to the section of your
23 report you just read references (as read and/or
24 reflected:)

25 "The Primary and Secondary

1 Bond Markets," by Frank J. Fabozzi,
2 F-a-b-o-z-z-i, and Frank J. Jones,
3 Chapter 3, in "The Handbook of
4 Fixed Income Securities," 7th
5 edition, edited by Frank J. Fabozzi
6 and Steven V. Mann.

7 Is that correct?

8 A That is correct.

9 Q Other than that source, what are you basing
10 that statement on?

11 The statement that investment banks
12 underwrite notes -- that investment banks that
13 underwrite notes typically then serve as market
14 makers for the notes.

15 A I don't know. Thirty years of experience
16 doing Ph.D., which focused on the role of investment
17 banks in securities offerings.

18 Q In connection with notes?

19 A Specifically 144A notes? No. But in
20 general, yes.

21 Q Okay.

22 Does Fabozzi discuss how long an investment
23 bank will act as a market maker after the initial
24 issuance of a note?

25 A As I sit here, I don't recall.

1 Q Do they discuss whether all of the
2 underwriters who are involved in the initial
3 issuance of a note will continue on as market
4 makers?

5 A As I sit here, I don't recall.

6 Q Do you know in connection with this
7 analysis how long any of these underwriters operated
8 as a market maker in connection with the FXCM notes?

9 A I don't -- I need to relook at -- I need to
10 relook at the TRACE data, but as I sit here, no.

11 Q Would the TRACE data tell you which
12 underwriters operated as a market maker in
13 connection with the 144A notes?

14 A I don't -- I don't recall as I sit here.

15 Q Do you have any understanding as to whether
16 the underwriters acted as a market maker throughout
17 the entire notes period at issue here?

18 A I do not.

19 Q Did you do any investigation to determine
20 whether or not the underwriters acted as a market
21 maker throughout the entire Notes Period here?

22 A As I sit here, I don't recall.

23 Q To the extent -- to the extent these
24 underwriters did not act as a market maker for the
25 notes throughout the Notes Period, would that tend

1 to indicate that the notes did not trade in an
2 efficient market?

3 MR. HAKLAY: Objection.

4 THE WITNESS: No.

5 BY MR. ISAJIW:

6 Q It would at least remove whatever evidence
7 of trading in an efficient market was ascribable to
8 the time period when they did act as a market maker;
9 is that correct?

10 A I'm sorry. I don't understand the
11 question.

12 Q If I understand what you're saying in this
13 report correctly, the fact that underwriters act as
14 market makers for these notes is one -- under Cammer
15 Factor 2, one indicia that the notes traded in an
16 efficient market; is that correct?

17 A I believe that's accurate.

18 Q Okay.

19 MR. HAKLAY: I'm sorry. I think you meant
20 Cammer Factor 3. Just so the record is clear.

21 THE WITNESS: Oh, yeah, sorry.

22 MR. ISAJIW: Thank you for your
23 clarification.

24 MR. HAKLAY: You both meant it, I know.

25 ///

1 BY MR. ISAJIW:

2 Q So to the extent that wasn't true for some
3 period of the Notes Period, that would no longer
4 support for the period where it wasn't true that the
5 notes traded in an efficient market; correct?

6 A Not necessarily.

7 Q I'm just -- so if it is true that an
8 underwriter acting as a market maker tends to
9 support efficiency, it can't also be true that an
10 underwriter not acting as a market maker would still
11 support the efficiency; it stopped.

12 A Well, okay. I guess you then need to
13 discuss or differentiate between efficiency and
14 inefficiency. Right.

15 Efficiency is not a yes-or-no phenomenon.
16 It's not a bipolar or two tail, whatever you want --
17 however you want to say it. It is not a yes or no.
18 It is on a sliding scale.

19 Q So to the extent on that sliding scale that
20 an underwriter acting as a market maker tends
21 towards efficiency, when it stops acting as a market
22 maker, it no longer tends towards efficiency, does
23 it?

24 A I'm not sure that's correct. I would need
25 to think about it more.

1 Q Other than the underwriters for the FXCM
2 notes, how many market makers were there?

3 And I'll point you to paragraph 133, which
4 I believe is where you describe -- paragraph 144 --
5 no. Paragraph 133, it says (as read and/or
6 reflected:)

7 Additionally, Barclays,
8 Sandler O'Neill, and UBS published
9 a report stating that they made a
10 market in FXCM securities during
11 the Class Period.

12 Did I read that correctly?

13 A That's correct.

14 Q The reason I'm asking is: Do you know as
15 part of your analysis that Barclays, Sandler
16 O'Neill, and UBS made a market in FXCM notes during
17 the Notes Period?

18 A I'm sorry.

19 THE WITNESS: Could you reread that,
20 please.

21 (The record was read back as
22 follows:

23 "Question: Do you know as
24 part of your analysis that
25 Barclays, Sandler O'Neill, and UBS

1 made a market in FXCM notes during
2 the Notes Period?")

3 THE WITNESS: I would need to take a
4 close -- a closer look at these reports to refresh
5 my memory.

6 BY MR. ISAJIW:

7 Q Would -- which reports are you talking
8 about?

9 A The reports published by Barclays, Sandler
10 O'Neill, and UBS where they state they made a market
11 in FXCM securities during the Class Period.

12 Q Okay.

13 So this is in the notes section of your
14 analysis; correct?

15 A That is correct.

16 Q And you're citing these in connection with
17 FXCM securities, not stock or notes, but securities,
18 the broader term. And you're citing the Class
19 Period, not the Notes Period. Again, the broader
20 term.

21 So I'm just trying to determine if you did
22 any analysis in connection with your report to
23 determine that these three entities were market
24 makers in the notes for the subsection of the Class
25 Period that was the Notes Period.

1 A Right.

2 And so in order to refresh my memory, I
3 would need to look at the reports in which those
4 statements were made.

5 Q Did you previously look at the reports in
6 which those statements were made and conclude that
7 they did and now you just don't remember? Or did
8 you not do the analysis initially? That's what I'm
9 trying to understand.

10 A Right. And I don't recall.

11 Q Okay.

12 Would you agree that there are
13 significantly few market makers for the notes than
14 there were in your analysis for the class -- for the
15 common stock?

16 MR. HAKLAY: Objection. More
17 significantly.

18 THE WITNESS: Could you reread the
19 question, please.

20 BY MR. ISAJIW:

21 Q You identified 205 market makers for FXCM
22 common stock; correct?

23 A That is correct.

24 Q Okay.

25 At best, based on what I'm reading in your

1 report, there are between 5 and 7 potential market
2 makers for the notes, although it's unclear, based
3 on the report, how many of them were actually market
4 makers for the notes.

5 So what I'm asking is, did you do anything
6 in your analysis to account for the fact that there
7 is a significant difference in the number of market
8 makers in common stock, 205, versus the notes,
9 roughly 5 to 7?

10 MR. HAKLAY: Objection. Vague.

11 THE WITNESS: Yeah. I don't understand the
12 question.

13 What type of analysis are you referring to?

14 BY MR. ISAJIW:

15 Q You did an analysis on market efficiency.

16 A Correct.

17 Q For both the common stock and the notes;
18 correct?

19 A That is correct.

20 Q In both of those analysis, you looked at
21 Cammer Factor 3, which deals with, amongst other
22 things, market makers; is that correct?

23 A That is correct.

24 Q Is it your view that more market makers
25 tend to support a finding of market efficiency than

1 less market makers?

2 A I don't know how courts rule on that.

3 Q I'm not asking how courts rule on it. I'm
4 asking how you as an economic expert rendering an
5 expert report view that factor.

6 A Right. But I'm doing that -- I'm doing
7 this in the context of litigation in which that -- I
8 have been asked to provide this information.

9 My understanding is courts find this
10 information helpful, and so I presented it to them.

11 Q So sitting here today, as an economist,
12 have you ever thought about whether or not more
13 market makers tend to support efficiency versus
14 fewer market makers?

15 A Hold on one second. I just need to look at
16 something here.

17 THE WITNESS: Could you repeat the
18 question, please.

19 (The record was read back as
20 follows:

21 "Question: So sitting here
22 today, as an economist, have you
23 ever thought about whether or not
24 more market makers tend to support
25 efficiency versus fewer market

1 makers?")

2 THE WITNESS: I mean, I would need more
3 information to ask that -- answer that question.

4 BY MR. ISAJIW:

5 Q If a security traded in a market that had
6 205 market makers, in your view, as an economist,
7 would it be more likely that that security is --
8 trades in an efficient market than one that has
9 seven market makers?

10 A Not necessarily.

11 Q Is the number of market makers relevant in
12 any way to your analysis of efficient market?

13 A Could be.

14 Q In connection with this analysis, was the
15 number of market makers relevant in connection with
16 your conclusion that the common stock traded in an
17 efficient market?

18 A Well, let's see.

19 It informed my opinion, yes.

20 Q In your opinion, is there a number of
21 market makers that would be too few to establish an
22 efficient market?

23 A I -- that's not anything I've ever thought
24 about.

25 Q If there were no market makers for a

1 security and they traded just between individual
2 buyers and sellers, would that support market
3 efficiency under Cammer Factor 3?

4 A Well, so now you're asking me about under
5 Cammer Factor 3. And then you get to court rulings.

6 Q Are you giving a legal opinion in your
7 report or an economic opinion?

8 A No. I am presenting evidence that I
9 believe supports my findings in this report.

10 Q If the evidence, under Cammer Factor 3 in
11 your analysis, was that there was only one market
12 maker for a security, would that support a
13 conclusion that the security traded in an efficient
14 market?

15 MR. HAKLAY: Objection.

16 THE WITNESS: It's possible.

17 BY MR. ISAJIW:

18 Q If there were no market makers in a
19 security, would that support the conclusion in your
20 analysis that the security traded in an efficient
21 market?

22 MR. HAKLAY: Objection. Assumes facts not
23 in evidence.

24 THE WITNESS: So in your hypothetical
25 example, nobody makes markets in the security.

1 Sure. Something could still about efficient with no
2 market makers if just traded between individuals.

3 There's no reason to -- yeah. That's the
4 answer.

5 BY MR. ISAJIW:

6 Q Take a look at paragraph 134, page 49.
7 It says (as read and/or reflected:)

8 During the Class Period,
9 according to the trades reported to
10 TRACE, between 35 percent and
11 40 percent of the trades reported
12 were dealer transactions which
13 results from a large number or
14 dealers facilitating transactions
15 similarly to how Market Makers
16 increase the efficiency of the
17 equity market.

18 Do you see that?

19 A I do.

20 Q Did I read that correctly?

21 A Yeah.

22 Q Based on your analysis of the TRACE data --
23 I'm sorry. Let me step back for a second.

24 Why would the proportion of
25 dealer-to-dealer trades be relevant to your

1 analysis?

2 A Well, to the extent that oftentimes in
3 economics people make the argument that dealers are
4 more informed, that would -- that would influence my
5 analysis.

6 Q Okay.

7 What do you mean by "dealer transactions"?

8 A Dealer transactions defined by the TRACE
9 data.

10 Q Okay.

11 And what is that -- is that between one
12 securities broker dealer and another securities
13 broker dealer?

14 A As I sit here today, I would need to look
15 at the data to refresh my recollection.

16 Q Do you believe, as you sit here today, that
17 a dealer transaction would -- in the TRACE data be
18 relevant to a dealer trading with a qualified -- a
19 QIB?

20 A I don't understand the question.

21 Q You indicated to me that the TRACE data, at
22 least in some way, indicates when it's a dealer
23 transaction.

24 A That is correct.

25 Q Does the TRACE data demonstrate any other

1 type of transaction?

2 A As I sit here, I don't recall.

3 Q Did you review the TRACE data yourself in
4 connection with your analysis?

5 A I did.

6 Q Do you know if the TRACE data identifies
7 which dealers are trading the notes?

8 A Well, I -- when you say "which dealers,"
9 you mean -- I don't believe so, as I sit here today,
10 but, again, I would need to look at the data
11 specifically to refresh my memory.

12 Q Assuming you're correct that the TRACE data
13 does not identify which dealers were trading in a
14 transaction, how did you determine that there was a
15 large number of dealers?

16 A Well, based on the fact that 35, 40 percent
17 of the trades were dealer transactions.

18 Maybe I was inartful.

19 Q Based on the TRACE data, can you tell how
20 many dealers traded during the Notes Period?

21 A Again, I would need to look at the TRACE
22 data to refresh my recollection.

23 I'm happy -- I'm happy if you have the
24 TRACE dataset, or at least a page of the TRACE
25 dataset to look over that.

1 But as I sit here today, I don't
2 specifically remember the answer to that question.

3 Q When you were doing your analysis, do you
4 remember if you ever tried to determine how many
5 dealers traded during the Notes Period?

6 A Again, I would refer to the same answer.

7 Q So you don't recall right now whether or
8 not you ever tried to determine whether -- how many
9 dealers traded during the Notes Period?

10 A Again, looking at the TRACE data will help
11 me refresh my recollection.

12 Q As to whether or not you tried to determine
13 that initially?

14 A It will refresh my memory regarding the
15 TRACE data, and so, then, yes, it will refresh my
16 memory with regards to your question.

17 Q So in connection with the note in Cammer
18 Factor 3, you looked at prominent underwriters,
19 market makers.

20 Cammer Factor 3, as we discussed earlier
21 today, also discusses arbitrageurs; correct?

22 A I believe that -- so let's look back at ...
23 yes.

24 And I'm reading from paragraph 33 (as read
25 and/or reflected:)

1 The Cammer court stated, "the
2 existence of market makers and
3 arbitrageurs would ensure
4 completion of the market
5 mechanism"...

6 Q So in connection with your analysis of the
7 FXCM notes, under Cammer Factor 3, did you examine
8 arbitrageurs?

9 A So is your question in the TRACE dataset is
10 there an indicator with regards to whether or not
11 these dealers are arbitrageurs?

12 Q No.

13 My question is (as read and/or reflected:)

14 So in connection with your
15 analysis for the FXCM notes, under
16 Cammer Factor 3, did you examine
17 arbitrageurs?

18 A I don't know how to answer that question.

19 Q Did you conduct any analysis to determine
20 whether or not arbitrageurs existed in trading for
21 the FXCM notes?

22 A I do not know -- I have not pulled the
23 market participants and asked them why they bought
24 or sold the notes --

25 Q Okay.

1 A -- which is what I would need to determine
2 whether or not they were arbitrageurs.

3 Q Okay.

4 So the existence or nonexistence of
5 arbitrageurs is not a factor in your analysis of the
6 FXCM notes?

7 THE WITNESS: Could you read the question,
8 please.

9 (The record was read back as
10 follows:

11 "Question: So the existence
12 or nonexistence of arbitrageurs is
13 not a factor in your analysis of
14 the FXCM notes?")

15 THE WITNESS: Again, I don't know the
16 overlap between what these traders were doing and
17 their purposes in doing it.

18 So to the extent that I was unable to ask
19 them the purposes of their trades, I guess that was
20 accurate.

21 BY MR. ISAJIW:

22 Q Okay.

23 A But, again, that's a guess based on
24 speculation.

25 Q You don't remember incorporating the

1 concept of arbitrageurs into your analysis of the
2 FXCM notes, sitting here today?

3 MR. HAKLAY: Objection. Asked and
4 answered.

5 THE WITNESS: Yeah. I'm -- I'm not sure
6 your question makes sense.

7 MR. HAKLAY: Peter, before you ask your
8 next question, at the last break the witness ask
9 that we take breaks more frequently than every hour,
10 so I was thinking every 45 minutes, which is not for
11 another seven minutes, but I meant to tell you that
12 before we started again.

13 MR. ISAJIW: I'm happy to accommodate, but
14 let's discuss that off the record when we get a
15 chance.

16 Q Let's turn to Cammer Factor 5 as it relates
17 to your FXCM notes analysis.

18 And, again, this is (as read and/or
19 reflected:)

20 Price Reaction to New
21 Information.

22 Let me know when you're there.

23 A Yep.

24 Q Okay.

25 Did you include all three of the event days

1 we discussed earlier with the common stock analysis
2 in your notes analysis?

3 A Did I include them?

4 I think they're implicitly included, but
5 that was not one -- I did not look at the first
6 event date that I looked at with regards to the
7 equity when I was looking at the bonds.

8 Q And why is that?

9 A Because there's no reason for me to think
10 that the transaction undertaken by the company would
11 have any impact whatsoever on the firm's probability
12 of bankruptcy.

13 Q Why not?

14 A Why not?

15 Q Yeah.

16 A I -- there's no reason for me to think that
17 buying another company in this -- in which the
18 analyst said it was a positive would necessarily
19 impact the probability of bankruptcy.

20 Q And that's the reason you've excluded it?

21 A Yeah.

22 As I state in my report (as read and/or
23 reflected):

24 Of the three events I selected
25 for testing FXCM common stock

1 market efficiency, only two events
2 occurred following the issuance of
3 the FXCM notes.
4 (Reporter clarification.)

5 BY MR. ISAJIW:

6 Q So what I heard in your answer just a
7 moment ago is that you also had the view that unless
8 an event relates to the possibility of FXCM's
9 bankruptcy, it wouldn't be relevant to a noteholder?

10 A No. Let's -- let's be very specific here.
11 So turning to paragraph 137 of my report.
12 Clearly lays out my belief on this subject
13 matter (as read and/or reflected:)

14 Because of bonds' seniority in
15 the capital structure of a company,
16 bonds' values and therefore prices
17 are insulated from all but the most
18 extreme news by a common stock
19 valuation cushion.

20 As a result, bonds are
21 typically the least sensitive of
22 all securities to company-specific
23 news while being the most sensitive
24 to a change in a firm's probability
25 of default.

1 It follows that not all of the
2 event study events selected for
3 FXCM common stock would make
4 suitable candidates for a bond
5 market efficiency event study.

6 Q I recognize that that's what's written
7 there. But I'm talking about what you said earlier,
8 which is (as read and/or reflected:)

9 There was no reason for me to
10 think that buying another company
11 in this -- in which the analyst
12 said it was positive would
13 necessarily impact the probability
14 of bankruptcy.

15 I asked (as read and/or reflected:)

16 And that's the reason you
17 excluded it?

18 And you said (as read and/or reflected:)

19 Yeah.

20 Of the three events I selected
21 for testing FXCM common stock
22 market efficiency, only two events
23 occurred following the issuance of
24 the FXCM notes.

25 So I'm just getting back, not to what you

1 wrote there, but I'm trying to better understand
2 your answer orally about the relationship to the
3 likelihood of bankruptcy and relevance to efficiency
4 of markets and notes.

5 A Right.

6 So I didn't think that that particular
7 transaction would change the firm's probability of
8 default would be a more precise way to state what I
9 inarticulately stated before.

10 Q Generally speaking, if an event would
11 change the firm's probability of default, is it more
12 likely that you would include it in an event study
13 for notes like the FXCM notes?

14 A I mean, I would need to do -- I would need
15 to do that on a case-by-case basis.

16 I guess it --

17 THE WITNESS: Could you ask the question
18 again or reread the question. Sorry.

19 (The record was read back as
20 follows:

21 "Question: Generally
22 speaking, if an event would change
23 the firm's probability of default,
24 is it more likely that you would
25 include it in an event study for

1 notes like the FXCM notes?")

2 THE WITNESS: It would depend on the
3 situation.

4 BY MR. ISAJIW:

5 Q The situation is it's more like -- more
6 likely to result in a bankruptcy.

7 A Well, okay.

8 Oh.

9 When you say "more likely," 1 percent more
10 likely? Two percent more likely?

11 Q I'm trying to get your view of how -- what
12 percentage of likeliness to increase the probability
13 of bankruptcy is the threshold above which you would
14 enter an event into an event study for the FXCM
15 notes.

16 MR. HAKLAY: For that reason alone?

17 THE WITNESS: No. I don't think --

18 MR. HAKLAY: Objection. Calls for a
19 hypothetical.

20 THE WITNESS: That's not a --

21 MR. HAKLAY: Misstates the facts in
22 evidence.

23 Please.

24 THE WITNESS: That's not a question that
25 I've ever been asked to address in these types of

1 analysis.

2 BY MR. ISAJIW:

3 Q You have been asked just now.

4 A Not in the context of doing my report.

5 Q No. I'm asking you the question now. I'm
6 asking when you're -- you talked earlier about an
7 objective screening of events to include in the
8 event study.

9 You've just indicated that an event that is
10 increasing the probability of bankruptcy would be an
11 event that you would look at to include in the event
12 study related to the notes.

13 I'm asking: What percentage of an
14 increased likelihood is required for you to actually
15 include it?

16 MR. HAKLAY: Objection. Argumentative.

17 Objection. Misstates his --

18 MR. ISAJIW: "Objection" is fine.

19 MR. HAKLAY: Excuse me?

20 MR. ISAJIW: "Objection" is fine. We don't
21 need speaking objections.

22 MR. HAKLAY: You don't need to tell me what
23 to say. If I want to give a 50-word objection, I
24 will. You can tell the judge one day, if you like.

25 Objection. Argumentative.

1 Objection. Misstates his testimony.

2 You can answer, sir.

3 THE WITNESS: I don't think I've ever
4 thought about a bright-line test like it has to --
5 it has to be done on a case-by-case basis.

6 BY MR. ISAJIW:

7 Q Okay.

8 On --

9 A In this --

10 Q In this case --

11 A In this case, I did not --

12 Q -- it was -- I'm sorry.

13 MR. HAKLAY: Finish your answer. No, no,
14 just finish your answer, please.

15 THE WITNESS: In this case, I did not
16 believe it significantly changed the firm's
17 probability of bankruptcy.

18 BY MR. ISAJIW:

19 Q In this case, if one of the events you
20 reviewed in your objective screen increased the
21 probability of bankruptcy by 1 percent, would that
22 be likely to be included in your analysis or
23 unlikely?

24 MR. HAKLAY: Objection. Assumes facts not
25 in evidence.

1 THE WITNESS: Right. It's an incomplete
2 hypothetical. I mean, I can't do it.

3 Again, you would need -- I need to have the
4 entire context, look at the entire facts associated
5 with the situation in order to arrive at my
6 determination.

7 BY MR. ISAJIW:

8 Q If an event, as part of your objective
9 screen -- strike that.

10 If in part of your objective screen you
11 reviewed an event that you determined was 87 percent
12 likely to increase the probability of FXCM's
13 bankruptcy, do you think you would include it in
14 your event study?

15 MR. HAKLAY: Same objections.

16 THE WITNESS: So in your hypothetical, the
17 probability of bankruptcy would be -- would increase
18 by 87 percent or the -- there would be an 87 percent
19 probability that that event would impact the
20 probability of bankruptcy?

21 BY MR. ISAJIW:

22 Q I don't know. I'm asking you. Which of
23 those two would be relevant for your objective
24 screen?

25 A Yours is an incomplete hypothetical. It's

1 unclear. I can't answer it, as I sit here today.

2 Q If an event would increase by 87 percent
3 the likelihood of bankruptcy, would that be
4 something you would probably include in your event
5 study?

6 MR. HAKLAY: Same objection.

7 THE WITNESS: So in your incomplete
8 hypothetical example, if an event occurs that
9 increases the probability of a firm defaulting by
10 87 percent. Again, I can't -- I would need more
11 facts in order to make that determination.

12 BY MR. ISAJIW:

13 Q Of the events that you reviewed in
14 connection with designing your event study in this
15 case, was your view of probability of increasing
16 bankruptcy relevant to your selection process?

17 MR. HAKLAY: Objection. Asked and
18 answered.

19 Please answer it.

20 THE WITNESS: I don't understand the
21 question.

22 I thought -- I don't understand the
23 question.

24 Can we take a break now?

25 MR. ISAJIW: One second.

1 Q Earlier today you testified that you
2 reviewed a number of possible events for inclusion
3 in your event study; correct?

4 A That is correct.

5 Q And that you -- we talked about you have a
6 process where you considered to be an objective
7 screening for selecting amongst those which are the
8 actual events that you include; is that correct?

9 A Well, we're not discussing my news/no-news
10 analysis, that is correct.

11 Q Okay.

12 In that or any other context in your
13 analysis here, was probability of bankruptcy a
14 selection criteria?

15 A I don't know how to answer that question.

16 Q In the news/no-news context, was
17 probability of bankruptcy a selection criteria?

18 A No.

19 Q Okay.

20 In the event study, choosing the three --

21 A Well, I do not believe so.

22 Q Okay.

23 In your decision-making process to pick the
24 three days that you ultimately included in your
25 event study, was the probability of bankruptcy a

1 selection criteria?

2 A In my equity analysis?

3 Q Let's start there.

4 A I don't know. It's not something I've ever
5 been asked before. It's not something I've -- I
6 mean, I thought that those three events were new
7 material information that would result in a
8 statistically significant stock -- that was material
9 enough to result in a statistically significant
10 stock price movement.

11 With regards to the bonds, same answer
12 except I only found two events.

13 Q Okay.

14 And was the selection process for the bonds
15 of those two events related to your perception of
16 increased likelihood of bankruptcy?

17 MR. HAKLAY: Objection. Asked and
18 answered.

19 THE WITNESS: So is your question: Do I
20 think the firm losing \$220 million increased their
21 probability of bankruptcy?

22 BY MR. ISAJIW:

23 Q That's not my question. My question is --

24 A Well, it is -- sorry.

25 May I please finish my answer?

1 Q You asked me a question --

2 A No, I'm asking --

3 Q I'm answering your question.

4 You asked me --

5 MR. HAKLAY: You know what, it's been
6 almost an hour. It's time to take a break.

7 THE WITNESS: Let's take a break.

8 BY MR. ISAJIW:

9 Q There's a question pending. I would like
10 you to answer the question pending before we take a
11 break. It's a relatively simple question. If the
12 answer is yes or the answer is no, that's fine.

13 I'm just asking if your perception of
14 likelihood of bankruptcy was a selection criteria
15 for the event study in connection with the notes.

16 MR. HAKLAY: Objection. Argumentative.
17 Repetitive. Asked and answered.

18 Please. You can answer one more time.

19 THE WITNESS: I believe -- and let me get
20 the number exactly correct.

21 For instance ...

22 BY MR. ISAJIW:

23 Q Maybe I can reframe the question.

24 A Well, no. Let me answer your question as
25 stated.

1 Q Okay.

2 A So on paragraph 85, I'm quoting here (as
3 read and/or reflected:)

4 FXCM -- let's see --

5 Their clients owed them approximately \$225
6 million.

7 So do I think that having their clients owe
8 them \$225 million increases their probability of
9 bankruptcy?

10 Yes, I do believe that, but I did not
11 select that date strictly because it increased the
12 probability of the firm's bankruptcy.

13 BY MR. ISAJIW:

14 Q Was it a relevant factor?

15 A That's a question I have not considered, as
16 I sit here.

17 Q Okay. Now take a break --

18 A I'm giving you the best answer I can give
19 you.

20 MR. ISAJIW: I appreciate that.

21 THE VIDEOGRAPHER: We are going off the
22 record.

23 The time is 3:52 p.m.

24 (Recess was taken at 3:52 p.m.

25 until 4:07 p.m.)

1 THE VIDEOGRAPHER: We are back on the
2 record.

3 The time is 4:07 p.m.

4 BY MR. ISAJIW:

5 Q Dr. Werner, I want to talk about your --
6 again, in relation to the notice, your event study
7 that you conducted under Cammer Factor 5, the
8 section titled "Cammer Factor 5: Price Reduction
9 and New Information."

10 MR. HAKLAY: Price reaction.

11 BY MR. ISAJIW:

12 Q "Price Reaction to New Information."

13 A All right. Okay.

14 And what page?

15 Q 50.

16 A Okay.

17 Q And specifically just to start off, if you
18 turn a couple pages to 53.

19 A Page 53?

20 Q Yes.

21 We see "Event Study Results" as a heading
22 for the January 16th, 2015 day and the February 7th,
23 2017 day on 53 and 54, respectively.

24 And my first question is: Did you perform
25 a news/no-news analysis for the FXCM notes like you

1 did for the FXCM common stock?

2 A I did not.

3 Q Okay.

4 Why not?

5 A I mean, I haven't seen it done in the past.
6 Certainly, no one's asked me to do it in the past.
7 I'm not sure I've ever seen a news/no-news analysis
8 for a bond offering. So I guess I would say, to the
9 best of my understanding, it's not part of industry
10 practice.

11 Q As an economist, is there a principal
12 difference between the equity and the bond -- the
13 equity security and the bond that would make the
14 news/no-news analysis inappropriate?

15 A Well, so let's go back to what I -- where I
16 describe bonds.

17 So, again, this is reading from
18 paragraph 137 (as read and/or reflected:)

19 Because of bonds' seniority in
20 the capital structure of a Company,
21 bonds' values and therefore prices
22 are insulated from all but the most
23 extreme news by a common stock
24 valuation cushion.

25 As a result, bonds are

1 typically the least sensitive of
2 all securities to company-specific
3 news while being the most sensitive
4 to a change in a firm's probability
5 of default.

6 It follows that not all of the
7 event study selected for --
8 sorry -- all of the event study
9 events selected for FXCM common
10 stock would make suitable
11 candidates for a bond market
12 efficiency event study.

13 Q Okay.

14 And so that's why there are few -- fewer
15 events in your event study for the bond, but I'm
16 just talking about the news/no-news analysis that we
17 discussed earlier with the common stock.

18 A Right. And that's my answer to your
19 question.

20 Q What about that answer would indicate that
21 you cannot do a news/no-news study for bonds?

22 MR. HAKLAY: Objection. Misstates his
23 testimony.

24 THE WITNESS: Right. So you're asking --
25 now you say "cannot."

1 So is it possible to do one? It is
2 possible to do one. I'm not sure I've ever seen one
3 performed.

4 BY MR. ISAJIW:

5 Q Okay.

6 You mentioned that twice that you haven't
7 seen one performed and that you don't believe that
8 it is part of any kind of industry standard.

9 What are you basing that on?

10 A As I sit here today, my recollection.

11 Q Okay.

12 Earlier we talked about how many times you
13 analyzed notes transactions from a market efficiency
14 perspective, as opposed to common stock, and I think
15 the summary of that was notes are a far fewer -- the
16 subject of notes is far fewer times the subject of
17 your analysis -- let me rephrase that.

18 Earlier we discussed your prior work in
19 connection with market efficiency analysis as
20 between common stock and notes.

21 And I believe you testified that you
22 analyzed notes far fewer than you do common stock;
23 is that correct?

24 A I believe it is correct with regards to --
25 with regards to me acting as an expert.

1 In general, there are much fewer bond cases
2 than there are equity cases brought.

3 So I think industrywide, that statement is
4 true as well.

5 Q Which statement?

6 A That people analyze bonds less than they do
7 stock.

8 Q Okay.

9 I'm asking if there's any reason why you --
10 why a news/no-news analysis would not be conducted
11 with a bond, as opposed to a stock.

12 MR. HAKLAY: Objection. Asked and
13 answered.

14 Please answer.

15 THE WITNESS: Again, I refer you to
16 paragraph 137 and not -- I'm speaking not just of my
17 own analysis. I've seen, obviously, other reports
18 on bond market efficiency. I've just never -- to
19 the best of my recollection, as I sit here today, I
20 have not seen it done.

21 BY MR. ISAJIW:

22 Q Which other reports on bond market
23 efficiency are you talking about?

24 A I don't recall, as I sit here today.

25 Q Is it possible to do a news/no-news

1 analysis on bonds?

2 MR. HAKLAY: Objection. Asked and
3 answered.

4 THE WITNESS: As I stated before, is it
5 possible? So in the grand -- in the world of
6 possibilities, yes, it is possible.

7 Again, that having been said, I have, to
8 the best of my recollection, I have never seen one
9 performed.

10 BY MR. ISAJIW:

11 Q And at any point in connection with this
12 analysis, did you try to perform one?

13 MR. HAKLAY: Objection. Asked and
14 answered.

15 Please answer.

16 THE WITNESS: I don't believe so.

17 BY MR. ISAJIW:

18 Q And when you made the decision not to
19 perform one, was that based on anything, other than
20 you just haven't seen them being done before and
21 that you were not asked to do one?

22 A Asked to do one.

23 So I don't understand the question.

24 Are you suggesting that -- I don't
25 understand the question.

1 Q I thought when I asked you earlier about
2 whether or not you did, you said no.

3 And I said, "Why not?"

4 And I believe you said you weren't asked to
5 do one.

6 A No.

7 Q Okay.

8 A That's inaccurate.

9 Q Okay.

10 Were you asked to do one?

11 A I'm never asked to do any specific
12 analysis.

13 Q So at some point during your analysis, you
14 did a news/no-news for the common stock; correct?

15 A Not at the -- that is correct, but not at
16 the behest of plaintiffs' counsel.

17 Q I wasn't suggesting it was. I was just
18 asking if you did it.

19 A Right. But your previous question was
20 about had anyone asked me to do an analysis. And so
21 I'm just trying to be clear about what we're talking
22 about here.

23 Q Okay.

24 To be clear, at some point during your
25 analysis, you did a news/no-news analysis for the

1 common stock.

2 Yes or no?

3 A That is correct.

4 Q Okay.

5 You also, at some point in your analysis,
6 had to make a decision whether or not to do a
7 news/no-news analysis with the bond; correct?

8 A I -- I'm sorry. Could you reread the
9 question?

10 (The record was read back as
11 follows:

12 "Question: You also, at some
13 point in your analysis, had to make
14 a decision whether or not to do a
15 news/no-news analysis with the
16 bond; correct?")

17 THE WITNESS: I'm not sure how to answer
18 that question.

19 I refer you to my previous answers about
20 why I didn't do one.

21 BY MR. ISAJIW:

22 Q And your previous answer is paragraph which
23 again? I'm sorry.

24 A Well, can you read back my answer from
25 before?

1 Q Is it one -- I believe it's 137.

2 A It is paragraph 137, but I don't -- I don't
3 believe that that was the only reason I stated I did
4 not do it. And so as to be as accurate as possible,
5 if you would like me to have her read back the exact
6 statement --

7 Q I don't want her to read back. I'm just
8 trying to make sure that I get your best answer.

9 You did not do a news/no-news analysis for
10 the bond, partly because of the reasons in 137;
11 correct?

12 A That is correct.

13 Q Okay.

14 Were there any other reasons?

15 A Other than the ones -- the other ones I
16 stated?

17 Q Which are the other ones that you stated?

18 A Again, just for accuracy, can you please
19 read back my statement where I discussed my decision
20 initially not to do this type of analysis?

21 Q I think reading that record would be
22 difficult to do.

23 So let me try to break it down.

24 Of the reasons you did not do a
25 news/no-news analysis, one of them were the reasons

1 in paragraph 137; correct?

2 A That is correct.

3 Q One of them is you do not believe it is an
4 industry standard to do a news/no-news analysis for
5 bonds; is that correct?

6 A If that is what I stated, then that is
7 correct.

8 Q I'm asking you if that's correct now as you
9 sit here today, regardless of whether or not you
10 said that before.

11 A I don't remember the exact way I phrased
12 it. At this point, I'm just confused about the
13 question.

14 I'm -- let me say it this way: I have
15 answered your question to the best of my ability.

16 Q And I'm trying to make sure I understand
17 your answer.

18 So part of the reason was 137. Part of the
19 reason was, you don't believe it's an industry
20 standard to do a news/no-news analysis on the bond;
21 correct?

22 A I'm not sure that that's exactly what I
23 said.

24 I believe I --

25 Q Would you adopt that statement now

1 regardless of whether or not you said it before?

2 A Oh, so now the statement is it is not an
3 industry standard.

4 I do not believe I have seen a news/no-news
5 analysis performed for bonds before.

6 Q Okay.

7 A That is my full understanding.

8 Q So part of the reason is that you have not
9 seen it done before; correct?

10 A I'm telling you -- I've answered your
11 question to the best of my ability.

12 Q Is any part of the reason that it could not
13 be done?

14 MR. HAKLAY: Objection. Asked and
15 answered.

16 THE WITNESS: I'm sorry. What was the
17 question?

18 (The record was read back as
19 follows:

20 "Question: Is any part of the
21 reason that it could not be done?")

22 THE WITNESS: Oh, so, again, I would refer
23 you read my previous answer. It is possible to do
24 one.

25 That having been said, I have never seen,

1 to the best of my knowledge or the best of my
2 remembrance, as we sit here today, one having been
3 performed.

4 BY MR. ISAJIW:

5 Q Other than the reasons we've talked about,
6 can you think of any other reason why you did not
7 perform a news/no-news event analysis on the bond?

8 A Any other reason than what I have
9 previously stated?

10 I don't believe so, but at this point, I'm
11 not -- I don't believe so.

12 Q Okay.

13 In your review of the bond, do you note
14 whether or not the bond traded on each day of the
15 Notes Period?

16 A I'm sorry. Where are you looking?

17 Q I'm not looking anywhere. I'm asking you a
18 question.

19 A Okay.

20 Sorry. Then, I don't understand the
21 question.

22 Q Do you know if the bond traded on each day
23 of the Notes Period?

24 A Oh, I don't believe so.

25 Q Okay.

1 Would it be appropriate in your analysis to
2 consider trading of the bond that occurred over a
3 weekend?

4 MR. HAKLAY: Objection. Vague.

5 THE WITNESS: I don't understand the
6 question.

7 BY MR. ISAJIW:

8 Q If a bond traded over a weekend, would you
9 include that in your analysis of market efficiency,
10 pursuant to your report?

11 MR. HAKLAY: Same objection.

12 THE WITNESS: So in your hypothetical
13 example, the bond trades over the weekend?

14 BY MR. ISAJIW:

15 Q Uh-huh.

16 A So someone buys and sells it over the
17 weekend, like, let's say, Saturday?

18 Q Yes.

19 A I'm -- that's not anything I've ever had to
20 consider before.

21 I would need more time to think about that.

22 Q Do you know if the FXCM bonds at issue in
23 this case that you analyzed ever traded over a
24 weekend in connection with the Notes Period?

25 A And, again, just for my clarification, when

1 we talk about "traded," we mean bought and sold --
2 and when you say "over a weekend"; right, because
3 over a weekend, when we usually talk about it from
4 the point of view of these types of analysis, it
5 means from, like, Friday to Monday.

6 So you're saying, in your hypothetical
7 example -- and to the best of my knowledge, it is
8 hypothetical -- maybe it did occur?

9 When you say "over the weekend," you're
10 talking about a transaction, just by way of my
11 example, someone bought and sold a bond on a
12 Saturday?

13 Q In that example, would it be appropriate to
14 consider that trading activity in your analysis?

15 A That's not something I've ever been asked
16 to think about before. So I would need more time to
17 think about it.

18 As I sit here today, I can't answer that
19 question.

20 Q Do you know if that occurred with the FXCM
21 notes during the Notes Period?

22 A As I sit here today, I do not know.

23 Q Okay.

24 If it did occur, do you believe you've
25 included those trades in your analysis?

1 A Again, I don't know.

2 Q Do you believe you've included all trades
3 during the Notes Period in your analysis?

4 A To the best of my -- what do you mean by
5 "all trades"? I'm not sure I understand the
6 question.

7 Q There's a specific period of time that
8 we've been referring to as the Notes Period; is that
9 correct?

10 A That is correct.

11 Q You understand that specific period of
12 time; correct?

13 A I do.

14 Q Trading of the notes occurred within that
15 window of time?

16 A That is correct.

17 Q You studied the trading of the notes within
18 that period of time in connection with your market
19 efficiency study for the notes; correct?

20 A That is correct.

21 Q Did you include all trading of the notes in
22 that window of time in your analysis?

23 A Right. And so here's where we -- this is
24 where I'm having problems, right.

25 I mean, there could be off-market trades

1 that aren't necessarily reported. And I could think
2 of all sorts of examples where trading occurs. And
3 when people talk about things like dark pools, when
4 we talk about equity, trading occurs. It's not
5 necessarily reported.

6 So I'm -- if you want to -- if you want to
7 show me where this has occurred, I may have a better
8 understanding of it. But given -- given my
9 understanding of how trading is defined, I don't
10 know the answer to your question.

11 Q Do you believe that Rule 144A bonds trade
12 in dark pools?

13 A I don't -- I, as I sit here today, have no
14 opinion about that one way or the other.

15 Q Okay.

16 A Certainly -- oh.

17 Q Any of the trading of the bonds in relation
18 to the FXCM notes that you analyzed -- sorry. Let
19 me rephrase that.

20 Are you aware of any trading in connection
21 with the FXCM notes that you looked at in connection
22 with your market efficiency analysis that occurred
23 through a dark pool?

24 A Well, so let's just be clear.

25 I was giving you an example of a period of

1 time where a trade might occur that it would not
2 necessarily be reported.

3 I was not -- I did not mean to suggest that
4 FXCM's notes were traded in a dark pool. That was
5 not my intention.

6 Q Okay.

7 Looking at paragraph 140 of your report, it
8 says (as read and/or reflected:)

9 For the February 7, 2017
10 event, there was no trading price
11 for the FXCM notes in the eight
12 days preceding February 7, 2017.
13 The earliest available price for
14 FXCM notes prior to the February
15 2017 was on January 2016.

16 Consequently, I performed the
17 event study for February 7, 2017,
18 using the FXCM notes' return from
19 January, 26, 2017, to February --
20 February 7th, 2017.

21 MR. HAKLAY: I'm going to -- just for you
22 at one point in the middle there, unintentionally
23 you said "January 2016." I know you meant
24 "January 26, 2017," as you later said.

25 MR. ISAJIW: Thank you for that correction.

1 Q Did I read that, other than that
2 correction, correctly?

3 A Yes.

4 Q Is it -- did you use the return from
5 January 26, 2017, because there was no evidence of
6 trades on January 27, 2017?

7 I'm just trying to understand the import of
8 that paragraph.

9 A I don't understand the question.

10 Q Explain to me at a very high level why you
11 performed the event study from -- for February 7,
12 2017, using FXCM notes return from January 26 to
13 February 7, 2017.

14 MR. HAKLAY: Objection to the term "at a
15 very high level."

16 THE WITNESS: Right.

17 So my understanding is that the earliest
18 available price for the FXCM notes prior to
19 February 7th, 2017, was on January 26, 2017. That
20 is the reason why I used it.

21 BY MR. ISAJIW:

22 Q Okay.

23 So there was no trading -- there was no
24 other trading? That was the only trading that you
25 could find?

1 MR. HAKLAY: Objection. Asked and
2 answered.

3 THE WITNESS: Could you read back my
4 question -- my answer, please.

5 (The record was read back as
6 follows:

7 "Answer: Right.

8 So my understanding is
9 that the earliest available price
10 for the FXCM notes prior to
11 February 7th, 2017, was on
12 January 26, 2017. That is the
13 reason why I used it.")

14 THE WITNESS: That is correct. That is my
15 understanding.

16 BY MR. ISAJIW:

17 Q Okay.

18 And in paragraph 142, one, two, three, four
19 lines down, you say (as read and/or reflected:)

20 For the Notes, the regression
21 data series included only days on
22 which there was a trading price for
23 two consecutive trading days, so
24 that a one-day return could be
25 computed.

1 Why is it important to have two consecutive
2 trading days?

3 A Why is it important to have two consecutive
4 trading days? It's just -- it's commonly what's
5 done in the -- in the profession.

6 Q Any other reason?

7 A No. That's ...

8 Q And when you say (as read and/or
9 reflected:)

10 It's commonly done within the
11 profession.

12 Which profession are you referring to?

13 A Profession where anyone tries to -- tries
14 to undertake a market model estimating bond returns.

15 Q Would that be economists?

16 A I believe economists might undertake that.

17 Q Anybody else?

18 A I'm sure other people undertake that as
19 well.

20 Q Any other profession that springs to mind
21 when you say "it's common in the profession"?

22 A I mean -- I mean, if -- I'm sure if I went
23 to some trading firms and they were trying to do
24 models predicting bond returns or trying -- they
25 would commonly use that as well.

1 So that would be one such example.

2 Q Okay.

3 Do you know how many days have consecutive
4 trading in the bond during the Notes Period?

5 MR. HAKLAY: I'm going to object as vague
6 because I don't know if you mean both days count as
7 one or both days count as two, if it's consecutive.

8 THE WITNESS: Yeah. As I sit here today, I
9 don't recall.

10 BY MR. ISAJIW:

11 Q Do you believe it was uncommon to have
12 consecutive trading days in the bond during your
13 analysis of the Note Period?

14 MR. HAKLAY: Objection. Vague as to the
15 word "uncommon."

16 THE WITNESS: I was going to ask you to
17 define uncommon. So I guess I agree with the
18 objection that the term is vague. I can't answer
19 the question.

20 BY MR. ISAJIW:

21 Q Do you have -- what is your understanding
22 of the term "uncommon"?

23 A In what context?

24 Q In this context.

25 A I don't know your -- if I use the word

1 "uncommon" in my report, I'm happy to have you point
2 it out to me, and then I'll be able to give you a
3 better understanding.

4 But I'm not sure. You're asking the
5 question. I don't know.

6 Q Let me rephrase the question.

7 When you reviewed the trading of the bonds
8 during the Notes Period, how many pairs of
9 consecutive trading days were there?

10 A I refer to my previous answer.

11 Q Which is what?

12 A I don't recall.

13 You asked it about a minute ago, that
14 specific question.

15 Q So if you look at Exhibit 11.

16 MR. HAKLAY: 11 he said. Not 12.

17 BY MR. ISAJIW:

18 Q What is Exhibit 11?

19 A It's my regression results for the bonds.

20 Q Is there anything on Exhibit 11 that would
21 refresh your recollection as to how many
22 consecutive -- how many days -- how many pairs of
23 consecutive days the bonds traded?

24 A As I sit here today, I see the number 66.
25 So my guess is that's probably the right number.

1 Q And that's 66 out of how many days?

2 A Well, whatever --

3 Q It's more than two years?

4 A It is more than two years. That is
5 correct.

6 Q So that is a relatively low number of days
7 with consecutive trading. Would you agree?

8 MR. HAKLAY: Objection to the term.
9 Please answer.

10 THE WITNESS: No, I would not agree.

11 BY MR. ISAJIW:

12 Q Is it more than half of the days?

13 A That's a different question. Is it more
14 than half of the days? More than half of the days
15 during the -- during that period?

16 Q Yes.

17 A It is -- so is 66 more than 252 times 2?
18 66 is not more than -- and, again, 252 times 2 is
19 just an estimation on my part.

20 Q So 66 is under observations. And that
21 means bond price observations in connection with
22 your regression study; is that correct?

23 A With my mark -- with my market model, I
24 believe that is correct.

25 Q Do you know how many bond price

1 observations you excluded from your analysis because
2 the bond price did not occur within a consecutive
3 trading day?

4 A Do I know how many?

5 THE WITNESS: Could you repeat the
6 question, please.

7 (The record was read back as
8 follows:

9 "Question: Do you know how
10 many bond price observations you
11 excluded from your analysis because
12 the bond price did not occur within
13 a consecutive trading day?")

14 THE WITNESS: As I sit here today, I do
15 not.

16 BY MR. ISAJIW:

17 Q But there were some?

18 A I believe that's an accurate statement.

19 Q Do you know if there were more than 66?

20 A As I sit here today, I don't know.

21 Q Is there anything in your report that you
22 could refer to, to figure that out?

23 A Possibly. It looks like I could add up all
24 the observations on Exhibit 12.

25 So one, two --

1 MR. HAKLAY: Hold on.

2 BY MR. ISAJIW:

3 Q I'm not asking you to add it up. I'm just
4 asking to see if that's how you would figure it out,
5 Exhibit 12.

6 A I believe so.

7 Q Okay. Thank you.

8 So referring back to paragraph 140 on
9 page 51.

10 A Okay. Paragraph 140 on page -- there we
11 go. 140.

12 Yeah. Okay.

13 Q So for the February 7th, 2017 event, you
14 used an 11-day window to calculate the return on the
15 bond, meaning from January 26, 2017, to February 7,
16 2017; is that correct?

17 A What do you mean by "window"?

18 Q Number of days.

19 A So could you restate the question with
20 "number of days" instead of "window"?

21 Q Is there anything particular about the word
22 "window" that is confusing you?

23 MR. HAKLAY: Objection. Argumentative.

24 THE WITNESS: Well, oftentimes window is a
25 term of art in economics. So I don't know how

1 you're using it.

2 BY MR. ISAJIW:

3 Q And what does that term of art refer to in
4 economics?

5 A It would depend on the situation. But it's
6 not -- it's not -- there's not a -- necessarily a
7 common definition of it.

8 Q Your calculation here results in an 11-day
9 return; is that correct?

10 A I'm not sure that's correct.

11 Q Okay.

12 In this particular example for this one
13 event, you used an 11-day period to calculate the
14 return on the bond; is that correct?

15 A I used the price on February 7th and
16 January 26th. If that's 11 days, then I believe the
17 answer to your question is yes.

18 Q Okay.

19 And that's to calculate the return in
20 connection with the February 7th event; correct?

21 A I'm sorry. The what?

22 Q The return.

23 A On which day?

24 Q February 7, 2017.

25 A That is correct.

1 Q Okay.

2 Have you ever seen an 11-day return used to
3 measure a single-day event in any peer-reviewed
4 academic study?

5 A Have I ever seen -- I have -- as I sit here
6 today, I have no idea.

7 Q Okay.

8 When you do this type of analysis, is it
9 often -- is it common for you to use an 11-day
10 period in your calculation for a single-day event?

11 A Well, to the extent that normally when I
12 perform this analysis, it's on equities, no; that
13 would be uncommon.

14 Q Okay.

15 A But to the extent that this is a bond
16 offering, I can't say whether it would be common or
17 uncommon.

18 Q Okay.

19 In your calculation, are you assuming that
20 the bond price stayed constant between the last
21 trade on January 26th and the first trade on
22 February 7th?

23 A What do you mean by remain constant?

24 Q Did not change.

25 A Am I making the assumption that the price

1 did not change -- I don't understand the question.

2 Q If the price changed in the 11-day period,
3 would that affect your calculation?

4 A Possibly.

5 Q Are you assuming for the sake of this
6 calculation that the price did not change during
7 those 11 days?

8 A And, again, I'm just not -- so are you --
9 is the question did another trade occur during that
10 11 days in which the price changed?

11 I don't -- I don't quite understand the
12 question.

13 Q I'm just trying to think of different ways
14 to phrase it.

15 Are you assuming, for the sake of this
16 calculation, that the bond would have traded at the
17 same price on February 1 as January 26th?

18 A Am I making the assumption that the bond
19 price would have --

20 THE WITNESS: Can you reread the question,
21 please.

22 (The record was read back as
23 follows:

24 "Question: Are you assuming,
25 for the sake of this calculation,

1 that the bond would have traded at
2 the same price on February 1 as
3 January 26th?")

4 THE WITNESS: I don't understand the
5 question.

6 BY MR. ISAJIW:

7 Q If the bond price could have moved between
8 January 26th and February 7th due to other
9 information occurring within that time period, how
10 can you interpret that return as measuring the
11 impact on the alleged disclosure of the
12 February 7th, 2017 event?

13 Can you?

14 A Oh, so you're -- wait.

15 Are you assuming that additional events
16 occurred during that window that moved the -- that
17 would have impacted the bond price?

18 Is that what your hypothetical is assuming?

19 Q I'm asking if that happened.

20 A To the best of my knowledge.

21 I mean -- well, so information -- I'm sure
22 information came out during that period, but
23 information that affected the bond prices? Not to
24 my knowledge.

25 Or information that would have affected the

1 bond prices? Not to my knowledge.

2 Q If it did occur, would that affect this
3 calculation?

4 A So in your hypothetical, news that would be
5 of such import occurred during that seven-day window
6 that would have been significant enough to change
7 the bond price, would that have moved the bond
8 price?

9 I -- I don't know. I don't even know how
10 to answer that question.

11 Q No. I'm asking, are you assuming for this
12 calculation that that did not occur, that the bond
13 price remained constant between January 26, 2017,
14 and February 7, 2017?

15 A And, again, I think I've stated, I don't
16 know how to answer that question.

17 Q Okay.

18 When you were analyzing the corrected --
19 the disclosure event for the common stock, do you
20 use the sub period of February 8, 2016, to
21 February 6, 2017, when you're testing the reaction
22 of the common stock?

23 A I'm sorry. Could you repeat the question.

24 Q In connection with your analysis in common
25 stock for this trading event, the February 7th, 2017

1 trading event -- I'm sorry -- disclosure event, you
2 used a sub period, which was February 16 to
3 February 17.

4 A The sub period? I'm sorry. I don't
5 understand the question.

6 Q You broke down your analysis of the common
7 stock into sub periods; correct?

8 A Well, so which sub periods are we talking
9 about? Are we talking about the market model sub
10 periods?

11 Q Okay. Yes.

12 A Well, then yes. By definition, I broke
13 those down into sub periods.

14 Q Why didn't you do that with the notes?

15 A Oh, so we're going -- okay.

16 I -- at this point in time, I would refer
17 to my answer, which I previously gave, with regards
18 to that question.

19 Q Which answer?

20 A I don't have anything more to say on that
21 subject.

22 It occurred maybe an hour or two hours ago.
23 That specific question was asked.

24 Q Was one of the reasons because you did not
25 have enough consecutive trading days for the bond?

1 A I've answered that question to the best of
2 my ability. I believe my -- the answer that I gave
3 previously is the best answer I can give at this
4 point in time.

5 Q When we went through that answer, was one
6 of them that you did not have enough consecutive
7 trading days for the bond?

8 A I don't recall whether or not that was part
9 of my answer.

10 Q Sitting here today, do you believe that one
11 of the reasons is because you did not have enough
12 consecutive trading days for the bond?

13 A I don't have an opinion one way or the
14 other, as I sit here today.

15 Q For the period of February 8th, 2016, to
16 February 6th, 2017, do you know how many consecutive
17 trading days there are for the bond?

18 A I'm sorry. So February 8th?

19 Q 2016.

20 A Okay. February 8th, 2016, to when?

21 Q February 6th, 2017.

22 A February 6th, 2017.

23 Okay. Hold on.

24 Based on -- and, again, I'm reviewing
25 Exhibit 12. I believe the answer to your question

1 is zero, but I would have to fully review all the
2 data to -- I would need to look at each -- my entire
3 dataset to give you a more accurate answer to that
4 question.

5 Q Okay.

6 Let's move to the Unger/Krogman factors in
7 connection with the notes, which is on page 54 and
8 paragraph 152.

9 Let me know when you're there.

10 A Okay.

11 Q You state (as read and/or reflected:)

12 In addition to evaluating the
13 efficiency of the market for FXCM
14 notes using the Cammer factors, I
15 also analyzed the Unger/Krogman
16 factors that are relevant to the
17 bond market, market capitalization
18 (or total par value) and float.

19 A Maybe I'm looking at the wrong part.
20 Which paragraph?

21 Q 152.

22 A Oh, so is that in the beginning of the
23 paragraph?

24 MR. HAKLAY: Yes. He's reading from the
25 very beginning of the paragraph.

1 THE WITNESS: Oh, okay. So -- okay.

2 BY MR. ISAJIW:

3 Q The next sentence says (as read and/or
4 reflected):

5 Because bid-ask data are not
6 reported by TRACE for bond
7 transactions, this Unger/Krogman
8 factor was not assessed for the
9 FXCM note.

10 Did I read that correctly?

11 (Reporter clarification.)

12 THE REPORTER: Thank you.

13 BY MR. ISAJIW:

14 Q Did I read that correctly?

15 A You did.

16 Q Okay.

17 Are there any other data sources for
18 bid-ask spread quotes, other than TRACE?

19 A For bonds?

20 Q Yes.

21 A As I sit here today, I don't know.

22 Q Did you endeavor to look for any other
23 sources of bid-ask data, other than TRACE for bonds,
24 in connection with your review of the FXCM notes in
25 this matter?

1 A I do not believe so.

2 Q Why didn't you?

3 A Why didn't I? Again, I'm going back to
4 industry standards. TRACE is the dataset usually
5 used to perform these types of analysis. It doesn't
6 report bid-ask spread --

7 THE REPORTER: It doesn't report what?

8 THE WITNESS: Bid-ask spreads. So ...

9 BY MR. ISAJIW:

10 Q Let's look at paragraph 154 on page 55.
11 And this is under the ultimate heading on the top of
12 the page, "Outstanding Par Value (Market
13 Capitalization)."

14 MR. HAKLAY: He's there.

15 THE WITNESS: Oh, I'm sorry. Yes.

16 BY MR. ISAJIW:

17 Q You state (as read and/or reflected:)

18 Beyond FXCM's large common
19 stock market capitalization, the
20 total par value of the FXCM notes
21 was larger than the market
22 capitalizations of some
23 publicly-traded companies.

24 Is that correct?

25 A That is correct.

1 Q Throughout this report, you highlight the
2 differences between how stocks and how bonds trade.

3 So why did you benchmark the bond size to
4 an equity market capitalization?

5 A Because that was the universe that I had
6 data on.

7 Q Do you believe that that analysis is an
8 industry standard?

9 A I don't know one way or the other whether
10 that analysis is an industry standard.

11 Q Did you look for any other sources of data
12 to benchmark the bond against?

13 A In this context?

14 Q Yes.

15 A For this analysis? I don't believe so.

16 Q Are you aware of any peer-reviewed academic
17 literature supporting this methodology?

18 A I'm not familiar one way or the other.

19 I mean, this typically -- I don't -- I
20 don't think people -- I don't think this is an
21 analysis that's commonly done outside of litigation.

22 Q Okay.

23 MR. ISAJIW: How are we on time?

24 MR. HAKLAY: We started this one at 4:07.

25 THE VIDEOGRAPHER: Do you need a time?

1 We're at 5 hours and 23 minutes.

2 MR. HAKLAY: You meant total time?

3 MR. ISAJIW: No.

4 I'm asking how long have we been since the
5 last break?

6 MR. HAKLAY: 43 minutes. So --

7 MR. ISAJIW: Maybe this would be a good
8 time to stop while we change gears.

9 MR. HAKLAY: Thank you.

10 I didn't understand the question.

11 Yes.

12 THE VIDEOGRAPHER: We are going off the
13 record.

14 The time is 4:50 p.m.

15 (Recess was taken at 4:50 p.m.
16 until 5:02 p.m.)

17 THE VIDEOGRAPHER: We are back on the
18 record.

19 The time is 5:02 p.m.

20 BY MR. ISAJIW:

21 Q So, Dr. Werner, I wanted to discuss your
22 damages opinion and damages methodology for a little
23 bit.

24 On page 5 of this report, Opinion 3, you
25 state (as read and/or reflected:)

1 With expert assistance, the
2 finder of fact in this matter will
3 be able to compute damages using a
4 common class-wide methodology that
5 applies to the calculation of
6 damages for each and every Class
7 member.

8 Is that correct?

9 A You read that correctly.

10 Q And then on page 56 you have a heading,
11 "Common Damages Methodology."

12 A "Common Damage," singular, "Methodology."
13 Maybe it should say "damages."

14 Q Okay.

15 Did you draft this section of your report?

16 A At some point in my life, yes.

17 Q Okay.

18 So this is -- this section or parts of it
19 have been used in prior reports of yours?

20 A I believe that's correct.

21 So, by way of example, I mean, I would
22 typically use this language (as read and/or
23 reflected):

24 Plaintiffs' counsel -- and
25 this is paragraph 156 -- has asked

1 me to opine on whether per share
2 out-of-pocket damages could be used
3 for each Class member under Section
4 10(b) of the Exchange Act using a
5 common methodology for all Class
6 members.

7 Q Okay.

8 I was just asking because you said at some
9 point in your life, and I thought that meant not
10 necessarily for the first time here.

11 A Well, it -- no. I mean, if we're going
12 through the entire thing, yes, certain portions of
13 this were specifically drafted for this report.

14 Q Okay.

15 A Or this case, I guess.

16 Q Generally speaking, does one damage model
17 work for all securities litigation cases?

18 MR. HAKLAY: Objection.

19 THE WITNESS: Does one -- I don't
20 understand the question.

21 BY MR. ISAJIW:

22 Q You describe a damages methodology in this
23 report; correct?

24 A Yes, that is correct.

25 Q Is part of that damages methodology a

1 damages model?

2 A So a damages model, I think, is slightly
3 more complex. I have been asked to opine on whether
4 or not per-share damages could be measured each --
5 for each Class member under Section 10(b) of the
6 Exchange Act using a common methodology for all
7 Class members.

8 So I've opined upon that. I have not --
9 until the record is complete. I could not give you
10 a full-blown damage model.

11 Q Okay.

12 So you haven't created a damage model?

13 A Created a damage model?

14 I have provided a framework under which one
15 could calculate damages.

16 Q That framework that you provided, would
17 that work for all securities class action cases?

18 A I think by definition, no.

19 Q Okay.

20 Have you ever proposed a different
21 framework in any of the securities cases that you've
22 been a testifying expert for in the past?

23 A At the market efficiency stage?

24 Q Yes.

25 A I don't know. I would need to think about

1 that.

2 Yeah. I'm just providing a framework under
3 which to calculate damages.

4 I don't know. I'm sorry. I don't know how
5 to answer your question.

6 Q So you provided a particular framework in
7 this report, which we'll get into the details of,
8 but, generally speaking, you provided a framework;
9 correct?

10 A What do you mean by "generally speaking"?

11 Q Let me rephrase it.

12 I believe you just told me that you
13 provided a framework for calculation of damages in
14 this report.

15 A That is correct.

16 Q Okay.

17 Have you provided that same framework in
18 prior securities litigation cases in a market
19 efficiency report?

20 A Have I provided that same framework?

21 I'm not sure how to answer that question.

22 Q Help me help you -- help me ask a better
23 question.

24 What is confusing about the question?

25 A I just don't understand it.

1 Q You refer to a framework in this report.
2 I'm asking if you used this framework in prior
3 matters at the market efficiency stage -- I'm
4 sorry -- at the class certification stage.

5 A I have provided a framework under which one
6 could estimate damages in this specific case.

7 Q Okay.

8 Have you ever proposed a different
9 framework in another matter?

10 A I'm sure I have.

11 Q Have you ever proposed a different
12 framework in a securities class action case?

13 A Hmm. I don't know, as I sit here today.

14 Q You currently cannot think of a time when
15 you proposed a different framework in a securities
16 class action case?

17 A I think --

18 THE WITNESS: What was my answer to the
19 previous question?

20 (The record was read back as
21 follows:

22 "Answer: I don't know, as I
23 sit here today.")

24 THE WITNESS: Yeah. Still I don't know, as
25 I sit here today.

1 BY MR. ISAJIW:

2 Q Turning to page 57, paragraph 159,
3 subparagraph "i." You talk about a number of
4 valuation tools including an event study analysis
5 and potentially other empirical analyses, if
6 necessary.

7 Do you see that?

8 A Yes.

9 Q Okay.

10 Apart from an event study, what are the
11 other empirical analyses that you're referring to?

12 A I mean -- again, until I have the full
13 record for this case, I would be -- I would be
14 speculating to talk about other empirical analyses.

15 Q Can you give me just an idea of what's on
16 the menu for potential other empirical analyses?

17 A Not until I have a full record of the case.

18 Q In any other case, have you used other
19 empirical analyses, apart from an event study?

20 A I believe so.

21 Q In a securities litigation case?

22 A I'm sorry.

23 Under market efficiency, or are we talking
24 now about loss causation and damages when we're
25 talking about a securities case?

1 Q We're talking about damages methodology, as
2 described in paragraph 159, sub "i," where you say
3 that you would use an event study and potentially
4 other empirical analyses, if necessary.

5 I'm just trying to figure out what are the
6 potential other empirical analyses.

7 You've suggesting you've used others in
8 other cases. So I'm now just asking, which ones?

9 A Right. But so when I say "other cases,"
10 I'm talking about at a lost causation or damages
11 stage.

12 Q Let's start with at the class certification
13 stage.

14 A So I have not -- I don't think I've ever
15 been asked to calculate damages.

16 Q Okay.

17 A Specific damages at the class certification
18 stage.

19 Q That makes sense.

20 And so then at the damages expert report
21 stage, what types of other empirical analysis have
22 you used in the past to calculate damages?

23 A Again, and this is to the best of my
24 recollection, I mean, possibly earnings, earnings
25 multiplier -- not earning multiplier. Sorry.

1 Earnings ratios. I mean, a series of financial
2 ratios.

3 Again, it varies from case to case.

4 Q Okay.

5 In the next sentence of the same paragraph
6 you say (as read and/or reflected:)

7 This analysis, after
8 controlling for potentially
9 confounding non-fraud-related
10 information, would determine if the
11 alleged misrepresentations and
12 omissions had caused the stock
13 prices to be artificially inflated,
14 and that the corrective
15 disclosure(s) caused the inflation
16 to dissipate, in turn causing
17 investor losses.

18 Did I read that correctly?

19 A Yes.

20 Q What do you mean by "potentially
21 confounding non-fraud-related information"?

22 A Information not related to the fraud.

23 Q What does "confounding" mean?

24 A Confounding, different, conflicting with.

25 Q As you're using it in this sentence, I'm

1 just trying to understand.

2 A Information that's not the same as the
3 fraud-related information.

4 Q What types of information can be
5 confounding information, in your experience?

6 A It depends on the situation.

7 Q In the situation of the last time you
8 opined on a damages model in a securities case, what
9 type of confounding information was present there?

10 MR. HAKLAY: Objection. Assumes facts not
11 in evidence.

12 You can answer.

13 THE WITNESS: I don't recall. I mean, how
14 about if I just give you an example.

15 So I don't know. Some -- some announcement
16 comes out about the fraud. If there was no other
17 information on that day, the stock price would go
18 down. But on that day, at the same time, they
19 announced they had made a billion dollars in
20 profits, which was much more than they had ever
21 earned before, you know, by a magnitude of 10.

22 That might be an example -- so I would
23 expect -- my -- again, in this hypothetical, my
24 expectation is that kind of announcement might, on
25 its own, might lead to a price increase, whereas,

1 the information with regarding -- with regards to
2 the alleged fraud might lead to a price decline.

3 And so those two things would be moving in
4 a different direction.

5 BY MR. ISAJIW:

6 Q Okay.

7 Any other examples you can think of?

8 A I think that's probably the simplest, as I
9 sit here today.

10 And, again, that was a hypothetical
11 example. It wasn't an actual example from a case.

12 Q Okay.

13 Looking at the next subparagraph you state
14 (as read and/or reflected:)

15 Second, an inflation ribbon
16 would be constructed, indicating
17 how much artificial inflation
18 caused by the alleged
19 misrepresentations and omissions
20 was in the price of FXCM securities
21 on the date -- on each day during
22 the Class Period.

23 What is "inflation," as you use it there?

24 A I think I define it somewhere else in my
25 report.

1 So let's just go to a general case.

2 Inflation would be the difference between
3 the actual price and the but-for price assuming some
4 type of fraud because usually when we talk about
5 inflation, it's in regards to fraud or alleged
6 fraud. Or omissions, misstatements.

7 Q Can the level of inflation change over
8 time?

9 A Yes.

10 Q How would you calculate inflation in your
11 model over time?

12 A Without -- without all -- full discovery in
13 this case, I can't opine on that.

14 Q I'm just wondering generally, high level,
15 what are the mechanics?

16 A Again, it differs on a case-by-case basis.

17 Q If you would do that, do you believe you
18 would use the same event study analysis that you
19 have used in your current report?

20 A Unless -- I mean, it would depend on
21 whether or not other facts became apparent during
22 discovery.

23 Q Sitting here today, do you know of any
24 changes you would need to make to the event study
25 you used in your report?

1 MR. HAKLAY: Objection. Asked and
2 answered.

3 THE WITNESS: Well, I can't predict what
4 facts will be discovered throughout the rest of
5 discovery. So it would be speculative of me to talk
6 about any changes that one might make to a
7 hypothetical inflation area as of this date.

8 BY MR. ISAJIW:

9 Q So just from a mechanics perspective, once
10 you conduct an event study on an alleged corrected
11 disclosure, how do you translate that into damages
12 throughout the Class Period?

13 A So can -- I'm not quite sure I understand
14 the question.

15 THE WITNESS: Could you repeat the
16 question, please.

17 (The record was read back as
18 follows:

19 "Question: So just from a
20 mechanics perspective, once you
21 conduct an event study on an
22 alleged corrected disclosure, how
23 do you translate that into damages
24 throughout the Class Period?")

25 THE WITNESS: You would adjust the

1 inflation ribbon to reflect that corrective
2 disclosure.

3 BY MR. ISAJIW:

4 Q Would you adjust the inflation ribbon based
5 on the number of corrective disclosures or the time
6 period between the corrective disclosure and the
7 purchase price?

8 I'm just trying -- what's the relationship
9 between the corrective disclosure and adjusting the
10 event ribbon -- I'm sorry, the inflation ribbon?

11 A At this point in time, it's an incomplete
12 hypothetical. Again, I'm more than happy to provide
13 an opinion about this if and when this case gets
14 to -- discovery is completed and I am asked to opine
15 upon loss causation and damages.

16 Q Sitting here today, you don't have an
17 opinion on that then?

18 A I don't believe I have been asked to form
19 an opinion as of this date. That was not what I was
20 asked to do at this stage in litigation.

21 Q Jumping backwards to paragraph 15 of your
22 report. And this is regarding the February 6, 2017
23 press release announcing the CFTC and NFA
24 settlement.

25 You state (as read and/or reflected:)

1 As a result of this news, the
2 value of FXCM common stock dropped
3 over 68 percent (on a logarithmic
4 basis) from \$6.85 to \$3.45 on
5 February 17 -- I'm sorry --
6 February 7, 2017, on heavy trading
7 volume (1.9 million shares of
8 common stock, compared to a Class
9 Period daily average of 0.15
10 million shares of common stock.)
11 Did I read that correctly?

12 A That is correct.

13 Q Can you define for me what a logarithmic
14 basis is?

15 A So I use a log return as opposed to the
16 normal return.

17 Q What is a log return?

18 A It's based on -- it's -- do you want me to
19 write down on a piece of paper what it might look
20 like?

21 Q I would like you to describe just
22 conceptually what it is.

23 A Well, okay. What's your understand --
24 sorry.

25 If your understanding of a return -- I

1 don't -- wait.

2 I may describe it in my report with more
3 precision than what I'm going to give you. I mean,
4 it's literally just a different way to calculate the
5 return, but ...

6 So let's take an example. Let's do an
7 example.

8 So yesterday the price of a stock was \$5.
9 Today it's \$10. So the return over that period --
10 the way people would commonly -- I better write
11 these numbers down just so I --

12 All right.

13 So let's say the price is \$10 today -- or
14 yesterday and it's \$5 today.

15 So normally what you would do in
16 calculating the return is you would take 5 minus 10
17 and then divide it by 10; whereas, when you're
18 calculating log returns, you would take the natural
19 log of 5 divided by 10.

20 Q Okay.

21 Going back to paragraph 15, the trading
22 price change that you describe there equates to a
23 drop of about \$3.40 per share; is that correct?

24 A \$3.40 -- yeah, it appears that's right.

25 Q Do you attribute 100 percent of this

1 decline to the information that was disclosed in the
2 CFTC press release?

3 A I'm not sure I have been asked to opine on
4 that at this point.

5 Q At this point, do you have any opinion on
6 that?

7 A As I sit here, it certainly was a
8 contributing factor, but beyond that, I don't -- I
9 haven't formed an opinion.

10 Q So you haven't formed an opinion whether or
11 not 100 percent of this decline was attributable to
12 the information in the CFTC press release?

13 MR. HAKLAY: Objection. Asked and
14 answered.

15 THE WITNESS: I have not been asked to
16 opine on that at this point in time.

17 BY MR. ISAJIW:

18 Q Is it your opinion that all of this decline
19 would have been caused by the market learning -- the
20 alleged truth about the FXCM's relationship with
21 Effex?

22 MR. HAKLAY: Objection. Same question.
23 Asked and answered.

24 THE WITNESS: Same answer.

25 ///

1 BY MR. ISAJIW:

2 Q And that answer is you do not -- sitting
3 here today, you have not formed an opinion?

4 THE WITNESS: Could you read back my answer
5 from the previous question.

6 (The record was read back as
7 follows:

8 "Answer: As I sit here, it
9 certainly was a contributing
10 factor, but beyond that, I don't --
11 I haven't formed an opinion.")

12 THE WITNESS: Yeah. Same answer.

13 I believe was there also something about I
14 have not been asked to provide that opinion at this
15 point in time?

16 THE REPORTER: (No audible response.)

17 THE WITNESS: There may have been something
18 about that as well.

19 BY MR. ISAJIW:

20 Q Would you agree that if some of the decline
21 in FX- -- FXCM's stock on February 6 and 7, 2017,
22 was caused by other factors, that it would not be
23 appropriate to include those losses in your damage
24 calculation?

25 A I don't understand your incomplete

1 hypothetical.

2 Q When conducting a damages analysis, if some
3 of the decline in the stock price was related to
4 factors, other than the alleged fraud, would it be
5 appropriate to include the losses in the damage
6 calculation?

7 A What do you mean by "losses"?

8 So now you're saying that there are losses?
9 Do you mean a price decline attributable to
10 non-fraud-related information?

11 I'm sorry. I don't -- I just don't
12 understand the question. Let's leave it at that.

13 Q If a -- if you determine in a damages
14 analysis that a stock price declines and some of the
15 decline is related to the alleged fraud in a case
16 and some of the decline is related to other factors,
17 in your opinion, is it appropriate to include all of
18 the decline in your damages analysis?

19 A So it would depend upon the situation, but
20 at this stage with regards to this specific
21 litigation, that's not something I have been asked
22 to do.

23 Q Can you think of a situation where it would
24 be appropriate to attribute the loss -- I'm sorry --
25 the decline in the stock price attributable to

1 non-fraud actions in a loss calculation or damages
2 calculation?

3 A Can I think -- wait.

4 In your hypothetical, there's other
5 factors, other news comes out on that day. It's an
6 incomplete hypothetical.

7 Q Let's control for all factors in the
8 hypothetical, other than -- you know what.

9 I withdraw the question.

10 What is your understanding of FXCM and its
11 business?

12 A My understanding is that -- and I'm reading
13 from paragraph 10 now of my report (as read and/or
14 reflected:)

15 FXCM described itself as "an
16 online provider of foreign exchange
17 trading and related services"
18 headquartered in New York, New
19 York. The Company provided "access
20 to over-the-counter ('OTC') FX
21 markets through [its] proprietary
22 technology platform." During the
23 Class Period, the Company's
24 platform sought to provide its
25 customers "the best price

1 quotations" on currency pairs from
2 various market makers, global
3 banks, and financial institutions.

4 Q Okay.

5 Did you draft that section of your report?

6 A I believe so.

7 Q And what information did you rely on in
8 drafting that section of your report?

9 A Let's see, I believe it was the -- at least
10 one of the 10-Ks.

11 Well, certainly at least some of -- one of
12 the financial statements.

13 Q What is your understanding of the term "No
14 Dealing Desk"?

15 A Well, my understanding is that in this type
16 of model a customer executes a trade -- and again,
17 I'm reading now from paragraph 11. (As read and/or
18 reflected:)

19 "Customer executes a trade on
20 the best price quotation offered by
21 [FXCM's] FX market makers," with
22 FXCM acting as a credit
23 intermediary while "simultaneously
24 entering into offsetting trades
25 with both the customer and the FX

1 market maker."

2 Q Is that your complete understanding of the
3 No Dealing Desk?

4 A I believe that's an accurate description of
5 my understanding.

6 Q Looking at the footnotes of your report, is
7 that understanding based on a combination of FXCM
8 form 10-Ks and the second amended consolidated
9 securities class action complaint in this case?

10 (Reporter clarification.)

11 MR. HAKLAY: Objection. Misstates what's
12 written in that paragraph, as you're referring to
13 it.

14 THE WITNESS: I believe that's informed my
15 opinion about it.

16 BY MR. ISAJIW:

17 Q Okay.

18 Do you have a view as to whether or not
19 FXCM's No Dealing Desk model was viewed as preferred
20 or even relevant to its customers?

21 A As I sit here today, no.

22 Q Do you believe FXCM's -- do you have a view
23 as to whether or not FXCM's No Dealing Desk model
24 was relevant to its shareholders?

25 A As I sit here today, I do not.

1 Q What about its noteholders?

2 A Same answer.

3 Q Do you have any understanding as to whether
4 or not the relationship between FXCM and Effex
5 changed over the Class Period?

6 I'm sorry. Let me ask -- let me take one
7 step back.

8 What is your understanding of Effex?

9 Effex is -- I want to make sure I spell it
10 correctly. It's E-F-F-E-X.

11 A Yeah, I'm trying to ...

12 Right.

13 So my understanding, I guess, is based on
14 my reading of the second amended complaint.

15 Q Okay.

16 Other than what's in the second amended
17 complaint, did you do any independent analysis about
18 the relationship between FXCM and Effex?

19 A Again, I don't remember if it was mentioned
20 in some of the press releases around the corrective
21 disclosure. So that -- if you have those, I would
22 be happy to take a look at those and refresh my
23 memory.

24 But I think to the extent that I've looked
25 at it, it would be this (indicating), and then,

1 again, I don't have a recollection of whether or not
2 I've seen it somewhere else.

3 MR. HAKLAY: Just for the record, when he
4 said "this," he put his hand on the second amended
5 complaint.

6 THE WITNESS: Second amended complaint,
7 Exhibit 6.

8 BY MR. ISAJIW:

9 Q Are you familiar with the business model of
10 any other FX brokerage firms?

11 A What do you mean by "business model"?

12 Q The way they operate their trading activity
13 in connection with -- in relation to their
14 customers.

15 Let me ask it -- we just discussed a No
16 Dealing Desk and you read from a portion of your
17 report about what you believe the No Dealing Desk
18 is.

19 Are you aware of any other FX trading
20 entities that have a No Dealing Desk model?

21 A Am I aware?

22 Well, again, I -- I don't know how to
23 answer that question. I mean, as I sit here today,
24 I can't answer your question.

25 Q Okay.

1 So as you sit here today, you do not know
2 one way or the other whether or not the No Dealing
3 Desk model was employed by other FX trading
4 entities?

5 A That is correct.

6 Q I want to just jump back real quick to the
7 damage, singular, section of your report.

8 A Oh, it may -- it probably should say
9 damages, but you --

10 Q And this is focusing on paragraph, I
11 believe, 159?

12 A 159.

13 Q And subsection "ii" where we were
14 discussing earlier about the inflation ribbon.

15 A Okay.

16 Q Okay.

17 A few sentences down below when we
18 discussed earlier, it's six sentences down (as read
19 and/or reflected:)

20 Construction -- construction
21 of the inflation ribbon generally
22 employs event study analysis,
23 combined with widely used and
24 generally accepted valuation tools
25 and models.

1 Did I read that correctly?

2 A Yes.

3 Q Can you describe what the "widely used and
4 generally accepted valuation tools and models" are?

5 A Yeah.

6 I would refer to my answer before when we
7 were discussing subpoint "i" about (as read and/or
8 reflected):

9 First, valuation tools, which
10 would include event study analysis,
11 such as that described herein, and
12 potentially other empirical
13 analyses if necessary, would be
14 used to establish that the
15 disclosure(s) correcting the
16 alleged misrepresentations and
17 omissions, caused the price of FXCM
18 securities to fall.

19 So when you asked me that question before,
20 I would refer you to that same answer in respect to
21 this question that you've just asked me.

22 That answer would not change.

23 Q Okay.

24 So there's no additional valuation tools or
25 models that you can think of that you did not

1 mention earlier today?

2 A I'm not sure that that's correct, but ...

3 Q If it's not, please let me know what the
4 additional tools are.

5 A Well, again, let's -- I refer you to my
6 previous answer.

7 I believe I said that the tools I would use
8 are case specific. I believe I cited one example
9 for you of a type of analysis that -- what I would
10 do.

11 So I will rely on that answer that I gave
12 previously.

13 Q Do these valuation tools and models require
14 data?

15 A It's possible that they do.

16 Q What sort of data would you need to utilize
17 the valuation tools to calculate the inflation at
18 the start of the Class Period?

19 A What -- I'm sorry.

20 THE WITNESS: Could you repeat that
21 question.

22 (The record was read back as
23 follows:

24 "Question: What sort of data
25 would you need to utilize the

1 valuation tools to calculate the
2 inflation at the start of the Class
3 Period?")

4 BY MR. ISAJIW:

5 Q And it probably should have been "with the
6 valuation tools" in that question.

7 A Yeah. At this point, it would be
8 speculative of me for me to opine upon that or
9 discuss that.

10 Q What types of datasets have you relied on
11 in the past?

12 A It differs from case to case.

13 Q Can you give me some examples of the
14 datasets in any case?

15 A Sure.

16 I might use datasets from Compustat or
17 datasets from Bloomberg. That would be two
18 examples.

19 Q And what would the Compustat data show you?

20 A You know, the Compustat, I don't remember.
21 I think Compustat was bought. Typically, firm
22 financial data.

23 As I sit here today, I'm speculating
24 because I believe that they underwent a transaction.

25 So when I used Compustat 30 years ago, I

1 probably -- like I said, again, I believe it has
2 been acquired, and so it is not proper for me to say
3 Compustat.

4 Q And you also mentioned datasets from
5 Bloomberg.

6 What type of data did you receive from
7 Bloomberg?

8 A Well, data from Bloomberg. Again, it
9 depends on the case. I don't remember off the top
10 of my head.

11 You just asked me for examples of what
12 other data I might or what other avenues of data I
13 might look at. And so I was responding to that
14 question.

15 Q Do you have any view of what type of data
16 you would want to review in connection with this
17 case if you're asked to do a damage calculation?

18 A Not as I sit here today.

19 MR. ISAJIW: I think now would be a good
20 time for us to take a quick break just so I can
21 go -- so I can go see if we can shorten things up.

22 Is that okay with everybody?

23 MR. HAKLAY: Sure. It's your deposition.

24 THE VIDEOGRAPHER: We are going off the
25 record.

1 The time is 5:38 p.m.

2 (Recess was taken at 5:38 p.m.

3 until 5:47 p.m.}

4 THE VIDEOGRAPHER: We are back on the
5 record.

6 The time is 5:47 p.m.

7 BY MR. ISAJIW:

8 Q Dr. Werner, earlier when we were talking
9 about the framework advantages set forth in your
10 report, you -- we were talking about various
11 valuation tools. And you said it would be
12 speculative as to what data you would need in
13 connection with doing an analysis pursuant to those
14 tools at this point.

15 Sitting here today, can you be sure that
16 the data exists that will allow you to calculate
17 inflation in this case if you were asked to do so?

18 A I would see no reason why that data
19 wouldn't exist.

20 Q And what kind of data do you believe that
21 would be?

22 A Well, again, I just -- I don't know. It
23 would be speculative of me at this point in time,
24 but I don't -- in doing damage analyses, I can't
25 ever remember coming across a case where I couldn't

1 get the data I needed.

2 I mean, it can always be subpoenaed. I
3 don't -- so I don't know.

4 In your -- it's an incomplete hypothetical
5 and not anything I've thought of at this point in
6 the day.

7 Q So if it's not something you've thought
8 about at this point, you can't be sure one way or
9 the other?

10 MR. HAKLAY: Objection. Asked and
11 answered.

12 Please answer.

13 THE WITNESS: In your hypothetical example,
14 you're asking me do I know as of this date -- it's
15 not anything I've thought about.

16 BY MR. ISAJIW:

17 Q Okay.

18 A That's the most accurate answer I can give
19 you at this point in the day.

20 Q Okay.

21 MR. ISAJIW: I think with that, I have no
22 more questions.

23 So I thank you for your time.

24 MR. HAKLAY: I was joking about the
25 59 minutes.

1 I have nothing.

2 MR. ISAJIW: I figured you were.

3 THE VIDEOGRAPHER: This is Media 1. And
4 this marks the conclusion of today's deposition of
5 Dr. Adam Werner, Ph.D.

6 We're going off the record.

7 The time is 5:49 p.m.

8 (Whereupon, at 5:49 p.m., the
9 deposition of ADAM WERNER, Ph.D.,
10 was concluded.)

11 ---oOo---

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1 **ACKNOWLEDGMENT OF DEPONENT**

2 I, ADAM WERNER, PH.D., do hereby certify
 3 that I have read the foregoing transcript of my
 4 testimony taken on 2/28/2020, and further certify
 5 that it is a true and accurate record of my
 6 testimony (with the exception of the corrections
 7 listed below):

8	Page	Line	Correction
9	_____	_____	_____
10	_____	_____	_____
11	_____	_____	_____
12	_____	_____	_____
13	_____	_____	_____
14	_____	_____	_____
15	_____	_____	_____
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18	_____	_____	_____
19	_____	_____	_____
20	_____	_____	_____

21 _____

22 ADAM WERNER, PH.D.

23 SUBSCRIBED AND SWORN TO BEFORE ME

24 THIS _____ DAY OF _____, 20____.

25 _____
 (NOTARY PUBLIC)

 MY COMMISSION EXPIRES:

1 STATE OF CALIFORNIA)
2 COUNTY OF LOS ANGELES) ss.

3

4 I, Reagan Evans, RPR, RMR, CRR, CCRR, CLR, CRC,
5 CSR No. 8176, in and for the State of California, do
6 hereby certify:

7 That prior to being examined, the witness named
8 in the foregoing deposition was by me duly sworn to
9 testify to the truth, the whole truth, and nothing
10 but the truth;

11 That said deposition was taken down by me in
12 shorthand at the time and place therein named and
13 thereafter reduced to typewriting under my
14 direction, and the same is a true, correct, and
15 complete transcript of said proceedings;

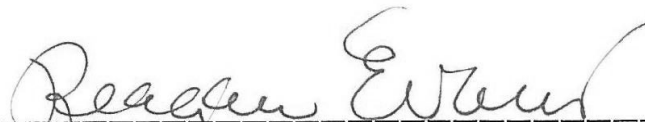
16 That if the foregoing pertains to the original
17 transcript of a deposition in a federal case, before
18 completion of the proceedings, review of the
19 transcript { } was { } was not required.

20 I further certify that I am not interested in
21 the event of the action.

22 Witness my hand this 3rd day of March, 2020.

23

24



Certified Shorthand Reporter

25

for the State of California

[& - 2.25]

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

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